

National Health Service
Department of Health and Social Security

Steering Group on
Health Services Information

Chairman: Mrs E Körner

A report on the collection and use of information about
patient transport services in the National Health Service



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PREFACE

This is the second in a series of reports by the NHS/DHSS Steering Group on Health Services Information.

The general principles which the Steering Group has adopted are explained in the First Report* in the series. They inform the conclusions and recommendations of the present report in that the overriding concern is to provide the minimum information needed by district health authorities and by those who are responsible for the day to day management and planning of ambulance services.

We wish to thank the Chairman and members of Working Group G for the thoroughness, application and despatch which they brought to their deliberations. We are also grateful to all those who, during those deliberations and in consultation, contributed valuable opinions and constructive criticism.

Mr Norman Cockett of the Secretariat acted as Secretary to the Working Group: his meticulous attention to detail and his drafting skills provided exemplary support for the work.

Edith Körner
Chairman, NHS/DHSS Steering Group on
Health Services Information

* First Report to the Secretary of State, published in October 1982, on the collection and use of information about hospital clinical activity in the National Health Service.

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1 Introduction

"... but woe to him that is alone when he falleth and hath not another to lift him up."

Ecclesiastes 4.10

1.1 There are 45 ambulance services, seven metropolitan and 38 "shire" services. In total their revenue expenditure in 1981-82 was £213 million and in the year to 31 December 1981 they carried over 20 million patients (source: SBH 195). The chief officer of each ambulance service is responsible for the day to day running of his service, for monitoring expenditure and ensuring that proper, efficient and effective use is made of resources, and for planning services. The chief ambulance officer is accountable to a district or regional administrator (often on behalf of a consortium of health authorities served by the same ambulance service). To perform his duties the chief ambulance officer must have a wide range of information at his disposal. It will be a distillation of the data used by his staff to perform their various duties. Chapter 2 of this report sets out the information (other than that on manpower and finance, which are dealt with in other reports) without which he cannot, in our view, manage his service. Chapter 3 deals with the much smaller set of information which should be provided to all district and regional health authorities routinely and Chapter 4 with the return to DHSS.

1.2 At present there is no standard information system in ambulance services. Many have developed advanced ways of analysing the work they do and how resources are used, from which data are extracted for a return in standard form (SBH 195) to DHSS. This return includes an analysis of patient journeys and mileage. The return was criticised by the Naylor Report (see glossary) which said that "both the collection and summarisation of these statistics are at a level of aggregation that is unable to provide a basis for meaningful local management action." In addition, most ambulance services use a method of measuring quality of service (or at least of the emergency service) recommended in the ORCON Report (see glossary). The ambulance service is, therefore, one of the few parts of the NHS which is able to measure routinely the correlation between demand, resources used and an important aspect of the quality of service.

1.3 It is a fundamental principle of the Steering Group that standard definitions should be used in data collection, so that it is possible to compare data from one health authority with those from another. There will always be differences between authorities, such as size and characteristics of population, which make it difficult to compare the performance of one with another. But it is particularly difficult to compare the performance of two ambulance services because of the differences in geography, the pattern of roads, the distribution of hospitals and clinics, the density and type of industry in the area and many other factors which dictate the number of vehicles and crews needed, the siting of ambulance stations, length of journey, etc. Therefore, whilst the data recommended should provide managers with a better insight into their service and the ability to compare performance from year to year, comparisons between ambulance services should be made with great caution.

1.4 Another of the Steering Group's main principles is that the data collected for statistical purposes should be collected as a by-product of operational procedures. Ambulance services have the advantage that a wealth of data is collected routinely: a vehicle cannot be deployed unless it is known where the patient is, where he is to be taken and what sort of vehicle and crew he will need. The records of emergency calls (forms AS1) and requests for routine transport (forms AS2 or equivalent) contain the data used by control staff who deploy vehicles, and must therefore be accurately completed. They can provide accurate data about, for example, the numbers and types of patients transported, reasons for travel, catchment areas of hospitals and clinics, and cross boundary flow. There is further information to be gathered from drivers' log sheets particularly about mileage, abortive journeys and the numbers of escorts carried. However, log sheets are a less satisfactory source of statistical information because they are not always accurately maintained.

1.5 Ambulance services have always been quick to take advantage of new technology. The speed with which they have made use of improvements in radio and telephone communications is a good example. Some services already use computers to assist vehicle controllers and fleet managers. The newest systems can produce management information as well. Most chief ambulance officers are confident that within a short time computers will be widely used for journey scheduling, to assist control staff, for fleet management and many other uses. Whilst all the recommendations in this report could be implemented using manual systems, computerised systems would produce the information very much more quickly and cheaply. The introduction of computerised systems will mean that it is feasible to make even better use of the wealth of information available from operational records. The report therefore suggests a number of ways in which managers of ambulance services might use this information in order to improve their ability to influence the quality and efficiency of the service they give.

2 Information for chief ambulance officers

2.1 This chapter is divided into four parts. They deal with the essential information the chief ambulance officer should have about the workload of his service, capital assets at his disposal and indicators of efficiency and quality of service. Whilst manpower and financial information are vital to the managers of ambulance services, these subjects merit, and will be dealt with in, separate reports which look at the information needs of managers of all health services.

Activity

2.2 A wide range of people are carried in ambulances in many different circumstances and they make varying demands on services. The emergency service is expensive because a vehicle and fully trained two-man crew should be available to respond immediately to a 999 call. This means that vehicles and highly skilled crews must be constantly available in case a call is received. Provision must be made for peaks in demand and for major accidents. On the other hand, in urban areas it is often possible to plan routine out-patient journeys for single-manned minibus type ambulances which will mean that vehicle and crew are fully used all day long. Ambulance services are accustomed to categorising the patients they carry for operational purposes in groups which, broadly speaking, use different levels of resources. The categories (listed in paragraphs 2.4 to 2.6 below) are set out and defined in Control Procedures (see glossary) and are well understood and applied throughout the service.

2.3 Whilst different patients make widely varying demands on ambulance services, all journeys start with a request for an ambulance from which the journey is planned and a vehicle and crew deployed. A count of the requests accepted will indicate the number of journeys planned for which vehicles are deployed. The patient journey (see glossary), which may be defined as any single journey organised by an ambulance service for a patient, is a convenient unit of work. This is the unit of measurement used in the existing SBH 195 return. If patient journeys are categorised according to the groups defined in the Control Procedures, then a very useful matrix of information can be produced grouping journeys broadly according to the resources used to make them.

2.4 The first set of categories relates to the **priority** of the journey (see glossary for definitions):

- a. emergency
- b. urgent
- c. special/planned

An emergency journey is one made in response to a 999 call. A fully equipped emergency vehicle and two-man trained crew must be deployed immediately to give initial treatment, sometimes to very seriously ill people, before taking

casualties to hospital. The urgent category makes similar demands on the ambulance service in that a vehicle and crew must be deployed quickly, although not necessarily immediately, to collect a patient, perhaps seriously ill, whose doctor thinks he should be admitted to hospital urgently. It is impossible to predict exactly when or how many calls in these two categories will be received, where the ambulance will have to go or what sort of emergency the crew will have to deal with. The special/planned category includes journeys requested and planned in advance; the service therefore knows how many vehicles will be needed and what work they will be doing. This means that very much fuller use can be made of vehicles and crews than can be achieved for those dealing with emergency and urgent journeys.

2.5 The second set of categories covers the **needs of the patient** (see glossary for definitions):

- a. stretcher
- b. two-man crew
- c. one-man crew

Where the patient has to be carried on a stretcher, it is likely that he will have exclusive use of a vehicle with a two-man crew so that his journey will be more expensive than it would have been if a number of other patients could have travelled at the same time. The two-man and one-man crew categories cover patients who are able to travel sitting. If the patient does not require the assistance of two ambulancemen to get into the vehicle, or attention in transit, then he can travel in a single manned ambulance (or by taxi or hospital car service). In practice, of course, in order to get best use of vehicles and crews, patients who do not in fact require a two-man crew will travel with those who do when their ambulance has spare seats.

2.6 Not all patients whose journeys are organised by ambulance services travel in ambulances. The **type of transport** provided varies according to the needs of the patient, the availability of ambulance service vehicles, the distance travelled and other factors. The cost of different types of transport will inevitably be different and it is useful for managers of services to know what types of transport are being used and to what extent. The existing categories are:

- a. directly provided (ambulance service vehicle)
- b. hospital car service
- c. agency
- d. rail
- e. air
- f. other

2.7 We **recommend** that the number of patient journeys should be recorded in the categories listed in paragraphs 2.4 to 2.6 above (see figure 1) separately for NHS and other journeys and the information provided to chief ambulance officers monthly.

Figure 1 Patient journey matrix

	Emergency			Urgent			Special/Planned			Totals			
	Stretcher	2 man	1 man	Stretcher	2 man	1 man	Stretcher	2 man	1 man	Stretcher	2 man	1 man	All
Directly provided													
Hospital car service													
Agency													
Rail													
Air													
Other													
Totals													



2.8 Of the categories in paragraph 2.4 above, the vast majority of patient journeys are special/planned. This group is made up of many different types of patient. Some may be seriously ill and need to be transferred from one hospital to another, whilst others need little more than a taxi service. Again this group of patients can be categorised very broadly according to the demands they make on ambulance services:

- a. admission, discharge or transfer (including day surgery patients),
- b. to attend out-patient clinic,
- c. to attend for remedial treatment (physiotherapy, radiotherapy, etc),
- d. to attend a day care facility.

2.9 In order to identify changes in the pattern of demand for ambulance services, we **recommend** that a sample of requests for transport in the special/planned category should be analysed in the four categories in paragraph 2.8 above. This analysis is intended for use by management within the ambulance service to see whether, for example, more patients are travelling to day care facilities which might require different vehicles or crews with different training. The sample chosen should make it possible to compare data from different years. It is less important that data from different ambulance services should be comparable. To take account of seasonal variations, we recommend that the sample should include all requests for special/planned journeys in one not untypical week (that is one not affected by unusually severe weather, holidays or disputes) in each quarter. Those journeys which have been cancelled by the ambulance service should be shown separately. It should be noted that an AS2 form (or equivalent) may record more than one request, for example, where a patient travels to and back from a clinic. In such cases, all journeys made within the chosen week should be counted.

2.10 We **recommend** that these data should be obtained from control documents, that is from records of emergency calls (forms AS1) and requests for non emergency transport (forms AS2 or equivalent). We **recommend** that computer systems introduced for journey scheduling and to assist control officers to deploy emergency vehicles should be capable of producing the matrix of patient journeys (paragraphs 2.4–2.7 above) and also the sample analysis of special/planned journeys (paragraph 2.9 above). We suggest that they should also be capable of analysing the pattern of patient flow, the number of patients attending particular clinics, the specialty of the doctor in charge of the patient's treatment and the doctor authorising ambulance transport. Multi district services should also be able to provide separate analyses of patient journeys for each of the district health authorities served. (For the information collected on forms AS1 and AS2, see Annex B.)

2.11 Some ambulance services record the number of journeys planned where the patient does not travel (abortive journeys) and the number of escorts carried. Taking into account the cost of obtaining the information and the practical limitations on the use to which managers can put the information when it is available, we are not convinced that there are strong enough grounds to recommend inclusion of this information in the minimum data set. However, we recognise that in practice the information can be useful and we suggest that the numbers should be monitored by use of ad hoc studies.

Capital assets

2.12 It is clearly essential that chief ambulance officers should know what capital assets are at their disposal and how they are used. We **recommend** that

there should be an inventory of the buildings used by an ambulance service under the following headings:

- a. ambulance stations
- b. controls (see glossary)
- c. administration
- d. training facilities
- e. others, including workshops

Information should be available for each building about the current expenditure including rates, rent, maintenance, gas and electricity.

2.13 Further information is needed for each ambulance station to indicate the level of use. The inventory should therefore include:

- a. the number of hours the station is open,
- b. the number of vehicles (see paragraphs 2.15 to 2.19 below for the information to be collected about vehicles),
- c. the number of ambulance officers and ambulance men and women employed in the station by grade.

2.14 The data to be collected both on current and capital expenditure by ambulance services will be discussed in the Steering Group's report on financial information.

2.15 About 10% of ambulance service costs are for the running of the fleet of vehicles. Substantial capital sums are also spent buying new vehicles. In order to manage their fleet and get best use of these valuable resources, ambulance officers need to collect a great deal of information. Almost all ambulance services have adequate manual fleet management systems, but most recognise that vehicle fleet records are a prime subject for computerisation. Some computerised systems are already in use and many more services intend to adopt computerised systems within the next few years. The data set recommended below is, in our view, the minimum essential for proper management of ambulance fleets, and pilot trials show that the necessary records can be kept manually at reasonable cost. Services with computers will be able to collect and make good use of a wider range of valuable data.

2.16 The recommended data set on vehicles is in two parts. The first part deals with the detailed information needed on each vehicle to account for running and maintenance expenditure. The data could also be used for analyses of the fleet. Using computers, it becomes simple to compare different makes and types of vehicle to find out which vehicles are susceptible to particular types of fault, to compare maintenance costs for vehicles of different ages, even to find out how many clutches or sets of brake shoes have been fitted. The fleet manager would probably not want to look at fleet records in this detail often, but if he noticed a series of apparently related faults, or was considering what type of vehicle to buy or wanted to compare notes with colleagues from another service, he could do so quickly and easily. The second part of the data set is an inventory of vehicles by type and age. The particular use of this inventory is for developing a vehicle replacement policy and a model on which to demonstrate the effect of different levels of capital expenditure.

2.17 We **recommend** the following set of data be kept on each vehicle in ambulance fleets:

- a. date vehicle first registered,

- b. mileage (weekly or monthly),
- c. fuel, oil and tyres consumed (quantities and costs),
- d. maintenance and repair costs and down time (see glossary),
- e. road accidents — minimum details including time, place, driver and cost of repairs,
- f. date road worthiness certificate to be renewed.

From this data we **recommend** that only data on total mileage and fuel be aggregated routinely.

2.18 We **recommend** that an inventory be prepared and updated annually including all vehicles in the fleet divided into the following categories:

- a. ambulance — two-trolley emergency,
- b. ambulance — two-trolley dual purpose,
- c. ambulance — sitting case only (under 14),
- d. ambulance — sitting case, seats and stretcher capacity (with or without lift mechanism),
- e. ambulance — sitting case, seats and lift mechanism,
- f. ambulance — car (saloon or estate car), with or without stretcher capacity,
- g. major incident vehicle — radio and/or equipment vehicle,
- h. recovery vehicle — landrover type or converted ambulance,
- i. ambulance — bus, 14 or more seats with or without stretcher or wheelchair capacity,
- j. staff/training vehicles.

We **recommend** that the inventory should show vehicles according to age in the following breakdown:

- a. under two years old,
- b. two–five years old,
- c. over five years old.

2.19 The necessary data to decide when vehicles should be replaced, can be obtained from the sets recommended in paragraphs 2.17 and 2.18 above.

Indicators of efficiency in the use of resources

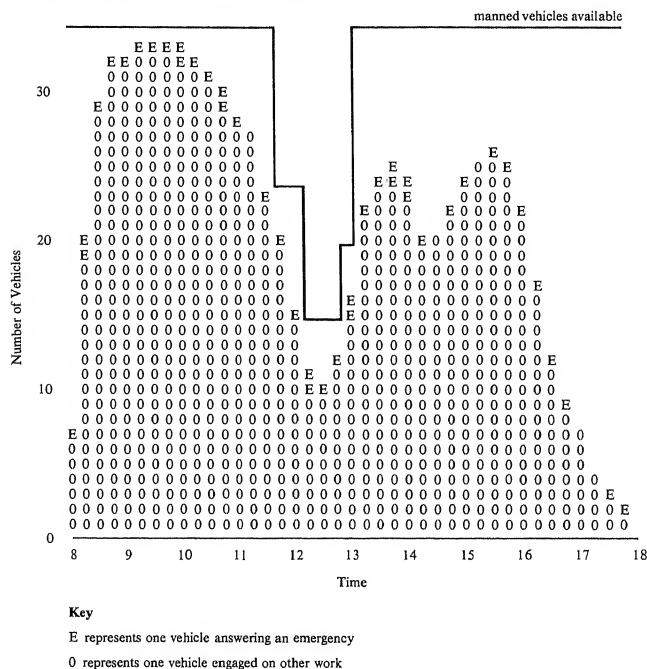
2.20 The data which we have recommended above should be collected, could provide information on efficiency but in our view might well fail to give sufficient information about ways in which the service can be improved or made less costly, and about the true effects of measures taken to improve services. Vehicles and crews account for about 70% of the cost of ambulance services. Some straightforward statistical methods can be used to analyse the way in which crews and vehicles are deployed and to suggest ways in which better use could be made of these valuable resources.

2.21 The number of vehicles which are to be manned in any shift is set to meet the level of demand expected in each shift and in each division of the service. Although one cannot say exactly when emergency calls will be received or how many crews will have to be sent in response, demand can be predicted reasonably accurately. It is possible therefore to judge with reasonable confidence the number of vehicles which will be needed. The judgement is based on operational experience rather than on statistical analyses. Whilst we

do not doubt the soundness of the decisions, we believe that ambulance officers should be able to check afterwards how fully capacity provided was used.

2.22 We **recommend** that, at least twice a year, each ambulance service should compare the number of manned vehicles available with the pattern of demand. This should be done by taking at least one typical week day (24 hours) and one typical weekend and comparing the number of manned vehicles available with the number actually in use, at 15 minute intervals. The data can be presented in the form of a chart similar to figure 2. Pilot trials have shown that it is of considerable value to do separate charts for different divisions within an ambulance service. This exercise is intended to be a tool for local managers and may be done more frequently than twice a year and in whatever form proves most useful locally.

Figure 2 Vehicle Utilisation Chart



Indicators of quality of services

2.23 In 1974 a report, known as the ORCON report, was prepared by the Ambulance Operational Research Unit at Cranfield Institute of Technology (see glossary). This report recommended a method of measuring the quality of ambulance services by comparing performance against certain stated standards. These standards were said to be realistic. It is not within our remit to review the standards but we endorse the method recommended. There are a number of practical problems in the application of these standards and, by and large, most ambulance services only use those set for emergency and urgent journeys. These problems are discussed further in paragraph 2.27 below.

2.24 For emergency journeys the ORCON standards are:

	Percentile	Metropolitan services	Non-metropolitan services
Activation time*	95	3 minutes	3 minutes
Response time*	50	7 minutes	8 minutes
	95	14 minutes	20 minutes

*see glossary

We **recommend** that information be available monthly so that a comparison can be made of the activation times and response times of all emergency journeys with agreed standards.

2.25 For urgent cases the ORCON standards are:

	Percentile	Metropolitan services	Non-metropolitan services
Arrival time at hospital in relation to request arrival time	95	no more than 5 minutes late	no more than 5 minutes late

There is some dispute about whether the quality of service for these journeys should be measured by comparing arrival time at hospital with the time specified by the patient's doctor or whether the standard should be for response time (see glossary) compared with that recommended by the doctor. Since both doctor and patient will judge the service by whether the patient arrives at hospital by the time specified by his doctor, we **recommend** that this comparison should continue to be used and information should be available monthly on all urgent journeys.

2.26 The ORCON standards for special and planned journeys are at present:

	Percentile	Metropolitan services	Non-metropolitan services
Arrival Time in relation to Appointed Time			
a. Planned	5	40 minutes early	60 minutes early
	25	20 minutes early	30 minutes early
	75	15 minutes late	20 minutes late
	95	40 minutes late	60 minutes late
b. Special	5	40 minutes early	60 minutes early
	25	20 minutes early	30 minutes early
	75	10 minutes late	15 minutes late
	95	20 minutes late	30 minutes late
Waiting Time after Treatment	50	30 minutes	30 minutes
	95	60 minutes	60 minutes

2.27 There are some 18 million special/planned patient journeys a year and it is clearly both unnecessary and unrealistic to attempt to include all these journeys in the return of quality of service. The ORCON Report recommends that the return should be based on a small sample (paragraph 8.1 of the ORCON Report), but even this sample includes, in total, nearly one and a half million patient journeys. There are two main problems, apart from the numbers of patient journeys, which make it difficult to apply the ORCON standards for routine journeys:

- many patients travelling by ambulance are not given a specific appointment time, and
- the ambulance service does not normally know at what time the patient is ready to return home.

2.28 We believe that it is feasible to conduct short term studies and to obtain the necessary data to prepare a return. For example the patient can be given an appointment card on which the ambulance attendant would note the time of arrival, the out-patient staff would record the time at which the patient was ready to return home and the ambulance attendant again would note the time the patient was collected. But most services do not prepare returns because they argue that the results are not worth the considerable effort needed to produce them.

2.29 Because of the practical problems and cost of preparing a return manually, we have reluctantly accepted that it should not be included in the minimum data set. However, we believe that a periodic return would be of considerable value to ambulance service managers so that they can judge the effect of measures taken to improve services. We also believe that, as public servants responsible for the expenditure of public money, they have a duty to take every step to maintain the best standards of service possible within the budget and that they cannot do so without information on the quality of the service provided. We **commend**, as a matter of good practice, the preparation of returns comparing the routine ambulance service with locally agreed standards on the lines of those in the ORCON report. These returns could be based on a small representative sample based on the sample recommended in the ORCON report (paragraph 8.1: data collected continuously in one seven day period in each quarter chosen retrospectively by someone external to the service).

2.30 Where specific problems have arisen at particular clinics or hospitals, it may be valuable to analyse the problems by comparing arrival time with appointment time using the table below.

Figure 3

		time of appointment			
		9.00	9.15	9.30	9.45
actual time of arrival	9.00				
	9.15				
	9.30				

This table will show the numbers of patients involved, how late or early they are for appointments and at what times of day the problems are most acute. Such analyses should be used as a matter of good practice when either ambulance control or clinic staff report problems.

3 Information for district and regional health authorities

3.1 In chapter 2 we recommended the information which should be available to the health authority officer responsible for day to day management of patient transport services, the chief ambulance officer. In this chapter we recommend the more limited information which should be provided by him routinely to the health authority and its management team.

3.2 At present there is no standard routine return of information from ambulance services to health authorities. A wide variety of returns have been developed in different authorities. The data set listed below represents the minimum of essential information which all authorities should have about their ambulance services whether or not they are directly responsible for the management of those services. Many authorities will wish to extend the range of information they receive routinely, but our concern has been to devise a data set which includes the essential indicators without over-burdening senior management with detail. Since some regional health authorities are directly responsible for the management of metropolitan ambulance services, we **recommend** that regional health authorities should have the same information as district health authorities.

3.3 We **recommend** that health authorities should receive a copy of the return on the quality of the emergency and urgent service (see paragraphs 2.24 and 2.25 above) and that they should have in addition the following information annually (on the service as a whole until the introduction of computers makes it feasible routinely to produce returns on the service provided for individual districts):

- a. total of patient journeys, mileage and cost,
- b. the analyses of patient journeys recommended in paragraphs 2.7 and 2.9 above,
- c. cost per patient journey,
- d. cost per vehicle mile,
- e. miles per patient journey,
- f. cost per thousand population,
- g. patient journeys per thousand population,
- h. vehicle utilisation (copy of the utilisation chart, see paragraph 2.22 above),
- i. vehicles in fleet (copy of the inventory, see paragraph 2.18 above).

Health authorities will also have returns on manpower and expenditure which are dealt with in other reports from the Steering Group.

3.4 We note the recommendation in the interim report from Working Group F on financial information that, for costing purposes, emergency and urgent services should be identified separately from non emergency services. We support the intention to study the feasibility of this proposal, but meanwhile make no firm recommendation.

4 Information for DHSS

4.1 The information needs of DHSS are somewhat different from those of ambulance officers and their managing authorities. Health authorities are concerned with day to day management of ambulance services, monitoring expenditure and planning services, for which a wide range of detailed information is needed. The role of the Department is to advise Ministers on the formulation of national policy, to assess the effects of changes in policy and to monitor overall quality of service, for which a broader picture of the NHS composed of a more limited range of data is needed.

4.2 We **recommend** that the SBH 195 return (see glossary) should be abolished and that in its place DHSS should have the matrix of information recommended in paragraphs 2.4 to 2.7 above. In addition, we recommend that the new return should include the proportions of special/planned patient journeys which fall into the following categories (derived from the sample referred to in paragraph 2.9 above):

- a. admission, discharge and transfer (including day surgery patients),
- b. to attend out-patient clinic,
- c. to attend for remedial treatment (physiotherapy, radiotherapy, etc),
- d. to attend a day care facility.

The return should also include an annual return on the quality of emergency and urgent service based on the monthly returns recommended in paragraphs 2.24 and 2.25 above (see figure 4).

Figure 4

_____ **AMBULANCE SERVICE**

QUALITY OF SERVICE RETURN 198_____

EMERGENCY JOURNEYS

Total number of emergency journeys

Activation time

number within 3 minutes

percentage of total %

activation time at 95 percentile minutes

Response time

number within 7/8* minutes

percentage of total %

number within 14/20* minutes

percentage of total %

response time at 50 percentile minutes

response time at 95 percentile minutes

URGENT JOURNEYS

Total number of journeys

number where patient arrives at hospital not more than 5 minutes after requested time

percentage of total %

arrival time in relation to requested arrival time at 95 percentile minutes

before/after*
specified time

* Delete whichever does not apply.

4.3 We have not recommended that the breakdown of mileage in the SBH 195 return be retained, because this analysis is not needed by ambulance services and because, being extracted from drivers' log sheets, the data are expensive to collect and probably unreliable.

The cost

Pilot trials and the many comments received on the Steering Group's interim report on patient transport services indicate that the cost of implementing the recommendations in this report using existing manual systems would be marginal for most services. Many of the data are already routinely collected and processed. If, as we have been assured, computers are widely introduced for operational purposes in ambulance services within the next few years, we expect them to be able to produce, as a by-product, all that we have recommended in this report and more. Expenditure on computers will have to be justified in terms of their operational advantages. The additional capital cost of using computers capable of producing management information as well, is, we think, likely to be negligible and such computers are likely to reduce the revenue cost of obtaining management information.

Membership of the Working Group on Patient Transport Services

Chairman:	Mr G F Owens OBE, District Administrator, Cornwall and Isles of Scilly Health Authority
Members:	Mr C Burrows, District Treasurer, Torbay Health Authority Mr D Carter, Regional and Chief Metropolitan Ambulance Officer, North Western Regional Health Authority Mr A J B Edwards, General Medical Practitioner, Barnstaple Mrs M Guest, District Patient Services Officer, Paddington and North Kensington Health Authority Mr I A Islip, District Administrator, West Berkshire Health Authority Mr B Johns, Regional and Chief Metropolitan Ambulance Officer, West Midlands Regional Health Authority Mr P J Mann, Chief Ambulance Officer, Wiltshire Ambulance Services and Regional Ambulance Officer, Wessex Regional Health Authority Mr A N Pearce, Service Development Administrator, Bath District Health Authority Dr R Sleet, Consultant, Southampton General Hospital Mr C P Vellenoweth, District Administrator, Wirral Health Authority Dr I G Yule, District Medical Officer, Aylesbury Vale Health Authority
Secretary:	Mr N R Cockett

Annex B

The information collected on form AS1 is:

- a. date,
- b. caller's name (address) and telephone number,
- c. location and nature of incident,
- d. number of casualties,
- e. other hazards (eg fire) and whether anyone is trapped,
- f. time call is taken and by whom,
- g. activation time,
- h. vehicle sent and by whom,
- i. time at scene of incident,
- j. time left scene,
- k. time of arrival at hospital and hospital's name,
- l. time clear,
- m. patient's name, address and suspected injuries,
- n. others notified, (police, fire brigade, etc) when and by whom,
and in the case of patients taken ill at home:
- o. whether patient is in bed, on a chair or on the floor,
- p. whether a doctor has been called and, if so, when,
- q. the doctor's name and telephone number,
- r. doctor's instructions,
- s. by whom the call was taken and when received.

The information collected on form AS2 is:

- a. patient's name,
- b. whether he will be accompanied by an escort,
- c. where he will travel from and to,
- d. date and time of appointment (and return journey),
- e. type of vehicle needed, (stretcher or sitting case with 2 man or 1 man crew),
- f. reason for travel (out-patient appointment planned or special, admission,
transfer or discharge),
- g. by whom transport was requested, when and his telephone number,
- h. doctor authorising journey, date and his telephone number,
- i. special instructions and patient's condition,
- j. when and by whom request was received and dealt with,
- k. whether the patient will need regular transport and if so when.

Glossary

Agency	SBH 195 return classification defined as 'contractual agreement for the provision of a regular ambulance service by a voluntary or other body or person on behalf of a NHS ambulance service'.
Activation time	Time from receipt of an emergency call until a vehicle is on its way.
AS1	Form completed by ambulance control as a record of transport requested for a person injured in an accident or taken ill suddenly (see Annex B).
AS2	Form used for requests for transport where form AS1 is not used. This form may be completed by doctors or patient services officers as well as ambulance staff (see Annex B).
Control	Position from which instructions are given for the deployment of ambulances.
Control Procedures	Instructions issued by DHSS on the procedures to be followed in meeting requests for ambulance transport.
Day care facility	See the Steering Group on Health Services Information First Report to the Secretary of State — chapter 13.
Directly provided	Ambulance service provided using NHS vehicles and staff.
Down time	Time when a vehicle is not available for use because it is awaiting maintenance or being repaired.
Driver's log sheet	Record kept by each ambulance crew of journeys made.
Emergency	Defined in Control Procedures (QV) as i. all accident and sudden illness patients, ii. maternity patients unless there is a clear indication to the contrary. See also 'urgent', 'special' and 'planned' below.
Hospital car service	Also called 'ambulance car service': service organised by ambulance services for patients who do not need to be attended by trained ambulance staff. The service uses volunteer drivers who transport patients in their own cars and are paid a mileage allowance to cover their expenses.
Naylor Report	Report by a Working Party on Patient Transport Services chaired by Mr W M Naylor, then Regional Administrator, Trent Regional Health Authority. (Published by Trent RHA, 1981).
ORCON	Standards of performance recommended in a research report 'The ambulance service: performance standards and measurement' by J A Barnes, J R Merchant and N Webster of the Ambulance Operational Research Unit, Cranfield Institute of Technology (1974).

Patient journey	A patient journey is a single trip to, or returning from, a place where the patient receives medical care or treatment. If one ambulance carries six patients to an out patient clinic and home again this would count as 12 patient journeys.
Planned	See also 'emergency', 'urgent' and 'special': non emergency journey in the lowest category of priority.
Remedial treatment	Treatment given by a health professional other than a doctor, such as physiotherapy or radiotherapy, but not including, for these purposes, care or treatment given in a day care facility.
Response time	Time from receipt of an emergency call to arrival of a vehicle and two man fully trained crew at the place where the patient is.
SBH 195	Routine return to the DHSS including a breakdown of patient journeys and mileage.
Special	See also 'emergency', 'urgent' and 'planned': a non emergency journey where punctuality is especially important.
Stretcher, 2 man, 1 man	Describes the needs of the patient on eg forms AS1 and AS2: stretcher (or ambulance) means 'the patient is recumbent, semi-recumbent, a maternity case, or is likely to need intensive ambulance aid during the journey'. 2 man/1 man (or car 2/car) means the patient can travel sitting, '2 man' means that the patient needs the assistance of a driver and attendant to get into or out of the vehicle.
Urgent	See also 'emergency', 'special' or 'planned': defined in Control Procedures as: i. maternity cases not given emergency priority, ii. hospital admissions for which the doctor has given a specified time, eg within one hour.

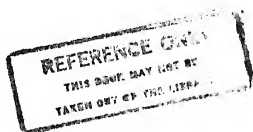
1984

National Health Service
Department of Health and Social Security

Steering Group on **Health Services Information**

Chairman: Mrs E Körner

A report on the collection and use of information about
manpower in the National Health Service



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Preface

"If we . . . consider what a variety of labour is employed . . . , we shall be sensible that, without the assistance and co-operation of many thousands, the very meanest person in a civilised country could not be provided, even according to what we very falsely imagine the easy and simple manner in which he is commonly accommodated."

Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Vol. i, Book I.

Manpower is the most valuable and costly resource employed by the NHS. Because of the very nature of health care, the Service is labour intensive, its labour force highly differentiated and work organisation extremely complex.

Thus, for example, in the financial year 1982/83, in England, some 824,000 whole-time equivalents (nearly 1 million people) were directly employed by the NHS; staff costs amounted to over £6,000 million representing some 75% of the total gross revenue expenditure on hospital and community services; and the organisation spanned about 5,000 different combinations of grade and area of work.

The pressures to increase staff numbers are unrelenting: improvements in diagnostic and treatment techniques with attendant higher specialisation, the quest for quality care, the growing number of elderly and reductions in working hours all contribute.

On the other hand, resource constraints, the need to contain costs and expenditure, and the emphasis on local accountability for performance have served to focus interest on the size, utilisation and cost-effectiveness of the workforce.

A greater onus than ever before is being placed on managers to maximise the return on their considerable investment in manpower resources. Improvements in manpower control systems and in the skill and determination to use these will yield considerable benefits both in economic terms and in service provision.

Knowledge of the absolute and the relative sizes of different staff groups, their deployment, their output and their remuneration is essential for the prudent use and effective control of manpower.

An understanding of the composition, distribution, performance and cost of the labour force is also a prerequisite for the formulation, implementation and evaluation of local and national plans and strategies for the provision of health care. Thus accurate and timely information on the characteristics of the manpower currently employed, which can be linked to and make sense of corresponding data on activity and finance, is a fundamental requirement of all managers.

Over recent years much attention has been devoted in both the NHS and the DHSS to the problems of manpower planning and the information needed to

support it. The main concern has been with the future supply of suitably trained and qualified staff; yet basic reliable and comparable data about the manpower currently employed are not readily available to district managers. The recommendations of this Report seek to redress the balance.

The present Report is based on the investigations undertaken and proposals made by a Working Group, set up by the Steering Group in July 1981, under the distinguished chairmanship of Professor J. R. Perrin. We are indebted to him for the clarity of perspective he brought to the work, and to the members (listed in Annex IV) for their vision, enthusiasm and great expense of time and energy. We would also thank those who led and contributed to the conduct of pilot trials at Exeter, Herefordshire, North Tees, South Birmingham and Northumberland Health Authorities and South Western and Northern Regional Health Authorities. We have enjoyed and benefited from the advice, assistance and encouragement of many well informed and willing helpers both in the NHS and the DHSS: we are grateful to all of them.

Mr. Michael Dunning of the Steering Group's Secretariat served as Secretary to the Working Group from its inception to September 1983. His synoptic grasp of the issues involved and his unremitting hard work have made a major contribution to the Report. Mrs. Marcia Fry ably completed the work of consultation and drafting.

Edith Körner
Chairman

1 Introduction to the Report

General approach

1.1 The recommendations in this Report follow the general philosophy and strategy outlined in our First Report¹ published in October 1982. In brief, we propose the routine collection of a series of minimum data sets to provide, at reasonable cost, the basic information which authorities and their officers need to discharge their responsibilities. The information on which they base their decisions and by means of which they evaluate the implementation of those decisions must be relevant, reliable and readily available. The reliability and timeliness of information improve if the data are collected as a by-product of operational procedures, and if their relevance to the management process is understood by the collectors.

1.2 We concentrate on identifying the information needs of the district health authority and its officers on the assumption that information not required for operational and for the district's own purposes will not normally be required regionally or nationally. We do, however, recognise that, in the case of manpower, the Whitley System and Review Bodies for determining terms and conditions of service nationally and the involvement of regions, DHSS and the postgraduate educational authorities in the control and planning of medical posts and in training, give rise to special demands for information at the national level.

Scope of the Report

1.3 Our chief aim in reviewing the information required about health services manpower has been to identify the data necessary for:

- a. the control and efficient use of manpower;
- b. annual and strategic planning and policy development;
- c. determination of terms and conditions of service; and
- d. accountability.

1.4 The data required solely for planning purposes have not been considered explicitly: the first step in planning the workforce of tomorrow is a sound understanding of the workforce employed today. The recommended minimum data sets are the necessary, even if not always sufficient, basis of any manpower planning system. However, we **recommend** that any additional data requirements specifically for manpower planning should be reviewed when the data sets proposed for control have been fully implemented and in use for at least 12 months.

1.5 In a narrow sense, staff numbers and/or hours to be worked are already controlled through financial arrangements, although the rigour of this control varies from district to district and between services. The introduction of national numerical, rather than solely financial, constraints and the stricter requirements for annual plans to reconcile proposed changes in services with their manpower implications have encouraged closer attention to staffing

¹Steering Group on Health Services Information: First Report to the Secretary of State. HMSO 1982

levels and highlighted the need for more informative data about them.

1.6 This Report proposes that information about manpower be structured to represent consumption of manpower resources over time rather than staff in post on a particular day. This approach takes account of the complexities of controlling a workforce which may fluctuate from day to day; it will contribute to the understanding and refinement of central guidance about manpower policies; and it will allow local managers the flexibility they need to employ staff as appropriate to meet changing circumstances within the strict discipline of agreed budgets.

1.7 In the wider sense, control involves deploying staff in a way designed to maximise productivity while minimising costs and monitoring staff use and output along the chain of accountability. Control in this sense of making the most efficient and effective use of staff is a fundamental responsibility of all budget-holders and managers. To achieve such control requires an integrated information system in which manpower, activity and financial data can be drawn together for analysis at a common level of activity.

1.8 Control in this wider sense also requires that managers assess their performance, not only against their own agreed objectives and over time, but also against the performance of comparable centres of activity regionally and nationally to pinpoint variances for subsequent detailed investigation.

1.9 Control of manpower has always been an implicit component of good local management; it is now being made explicit and formalised in the evolving concept of national performance indicators and in the reviews of regions by Ministers and of districts by regions. The successful development of performance indicators as a local management tool and to support the review process depends, inter alia, on a widely accepted, validated common core of well defined data.

Structure of the Report

1.10 We have been concerned with two broad types of data about health services manpower, namely:

- a. data about the distribution and cost of posts,
- b. data about the characteristics, input and cost of employees.

Chapter 2 is concerned with data about posts and Chapter 3 covers data about employees.

1.11 The data about NHS manpower required to be available nationally are considered in Chapter 4. Data to satisfy many of our recommendations are already being collected through computerised payroll systems. However, changes in user needs and information technology provide the opportunity to reconsider methods of data collection and processing. These issues are considered in Chapter 5. The factors affecting the resource consequences of implementation are considered in Annex III.

Types of recommendation

1.12 The majority of the recommendations in this Report concern the data items with associated classifications and definitions that should be regularly available to district managers. This district minimum data set comprises a core of comparable data without which authorities and their senior managers are handicapped in the discharge of their duties.

1.13 In addition to the minimum data set, the collection of some items has been recommended as good practice, to be taken up by those districts who wish to have more detail available to them. Beyond this, operational

considerations will require the collection of additional data: these will vary over time and from place to place according to locally perceived problems and local management styles. It is neither useful, nor indeed possible, to accommodate all such requirements in national systems.

1.14 With one important exception (at paragraphs 2.15—2.19), no attempt has been made to identify the precise format of information derived from the minimum data sets to be used at district level. When the recommendations about the data content of activity, finance and manpower systems have been finalised, it will be possible to consider with the NHS the most productive ways of exploiting the rich data base that will be available.

1.15 No attempt has been made to identify the minimum set of data which regions will require from districts; each region will do this for itself in consultation with the districts.

1.16 The minimum data set for non-medical posts and employees in regional units will be the same as the district minimum data set. The data set on all medical and dental posts and employees is to be a shared resource between districts and region.

2 Information about posts

Introduction

2.1 Data about individual posts and about planned staffing levels are basic components of manpower control and are an essential foundation for health service planning. However, in spite of their importance, there are currently no nationally recognised arrangements for recording data about NHS posts.

2.2 In this Chapter recommendations are made about:

- a. the content of the minimum data set on posts;
- b. information for use by district managers; and
- c. statistics about posts to be submitted to DHSS.

Minimum data set content

2.3 In terms of information content the minimum data set has 4 parts common to all posts:

- a. data about skill;
- b. data about location/position where work is carried out¹;
- c. data about the volume of work involved in the post; and
- d. data about the costs of the post.

A fifth part is necessary for medical and dental posts only:

- e. data about the nature of the post.

2.4 Although broadly the same information is required about all posts in the NHS, the involvement of regions, DHSS and the post-graduate educational authorities in the control and planning of medical and dental posts and their responsibilities for training arrangements require the data items collected about these posts to be defined differently. In this Chapter, therefore, medical and dental posts are considered separately from other posts.

Medical and Dental posts

2.5 We **recommend** that the **skill** content of hospital-based posts be identified by the specialty (or specialties) and the grade of the post. The specialty titles used should be those recognised by the Royal Colleges and Faculties. These are shown in Annex I. Where a post involves the work of two or more specialties, the proportion of time allotted to each should be recorded.

2.6 We **recommend** that the skill content of community-based posts be identified by the grade of the post and its location.

2.7 We **recommend** that the **location** of posts be identified by:

¹This may be in terms of geography (location) or management unit (position) as shown in paragraphs 2.7 and 2.12 respectively.

a. the main hospital site or main clinic or centre at which the post is based. Other hospital sites where duties are performed and other community-based work should also be identified together with the proportion of time allocated to each;

b. the rotational arrangement of which the post forms a part, if one exists. If the arrangement is stable, authorities may wish to allocate an identifying number to a rotation.

2.8 We **recommend** that the **volume** of committed staff time represented by each post should be described in whole-time equivalents derived from the following data:

- a. for consultants — notional half days;
- b. for training grades — units of medical time; and
- c. for community health staff — hours or sessions.

Authorities may wish to identify separately time spent on general administrative duties.

2.9 We **recommend** that the **cost** of a medical or dental post be determined either by reference to the cost of the current occupier or to the payscale for the grade for which the post was approved, with appropriate additions. We do not consider it appropriate to recommend a method that should be used universally. Account must be taken, however, of the need to maintain a service in the absence of a post holder by the temporary appointment of a locum. The inclusion of the post number (see below) in the payroll records for both post-holder and any locum filling the post will enable the total cost of the post to be calculated.

2.10 We **recommend** that the following data be recorded about the **nature** of medical and dental posts:

- a. *All medical and dental posts:*
 - i. Post number, unique within the region. This will allow a post to be linked to a post-holder for costing and control purposes.
 - ii. Whether established, personal or honorary. If established, the date of establishment should also be recorded.
- b. *All training posts:*
 - iii. Type, date of and expiry date of Royal College or Faculty approval.
 - iv. Commitment to an on-call rota.
- c. *SHO and registrar posts approved for entry into general practice:*
 - v. Date and expiry date of Regional Postgraduate Medical Committee approval.

All other posts

2.11 We **recommend** that the payscale code be used as a proxy for the **skill** required. This will identify in broad terms the nature of the work and the skill level of staff required to perform it. Understanding of the nature of the work will be further refined by linking data about payscale with information about the management unit to which the post is allocated (position).

2.12 We **recommend** that the **position** of posts be identified in terms of the management unit to which they relate. Each management unit will be a cost-centre or group of cost-centres (or equivalent) under the control of one budget-holder. In this way the identification of posts will be related to the local

budgetary control system. Where appropriate the geographical location of posts should also be identified.

2.13 We **recommend** that the **volume** of work involved in the post be identified in terms of:

- a. Worked hours (see paragraph 3.28c);
- b. Budgeted hours (see Glossary);
- c. Paid hours (see paragraph 3.28e).

This information is required for planning future staffing levels and for the purposes of budgetary control.

2.14 We **recommend** that the **costing** of posts be done using the local budgetary control and costing system. Costing practices vary and we do not consider it appropriate to recommend a particular one that should be universally adopted. Detailed costing should, however, take account of the following factors:

- a. basic pay, either actual or average for the grade including increments;
- b. overtime;
- c. allowances;
- d. bonus payments;
- e. absences;
- f. other relevant local factors; and
- g. employers' on-costs.

Information for district management

2.15 Rigorous assessment of prospective manpower requirements and equally rigorous retrospective accounting for the use of manpower resources lie at the heart of effective manpower control. Since a large, often the largest, proportion of most operational budgets is concerned with staff, the translation of plans into manpower budgets (as well as financial ones) strengthens the discipline of the annual negotiations for resources. Similarly the requirement to monitor manpower out-turn against agreed budgets focuses the attention of managers on the economical and efficient deployment of their staff.

2.16 Although districts already plan staffing levels and check to what extent plans have been achieved, the routine national collection of the proposed data about posts will encourage them to compare their own manpower budgets with activity over time and with other districts' manpower/activity ratios. Other advantages flowing from our proposals have been noted under paragraph 1.6.

2.17 Two types of information are required:

- a. planned staffing levels (the operational intention);
- b. actual staff consumption (over the operational period).

2.18 As a first step, we **recommend** that districts should declare annually, at a time to accord with the planning cycle, the operational intention for staffing levels in the coming financial year, expressed in whole-time equivalents (budgeted hours) for each of the main staff groups. This statement should identify the manpower resources which individual managers are intended to deploy within their approved budget and should represent the intended pattern of skills to be used to provide an agreed level of service. The setting of

staffing levels thus forms an integral part of the budgeting process and provides a measure against which managers can compare actual staff consumption during the year.

2.19 As a second step, we **recommend** that districts should annually record the actual consumption of manpower resources over the financial year expressed in whole-time equivalents (worked hours) for each of the main staff groups. This can then be compared with the declared operational planning intention for the same period. A narrative explanation may be needed to account for any deviations from plans. Thus in addition to regular monitoring during the year, district managers will:

- a. at the end of each financial year review the operational planning intention and actual staff consumption for that year; and
- b. annually, within the planning cycle, declare the operational planning intention for staffing levels for the coming financial year.

An illustration of the sort of report that might be produced is shown at Table 1.

Table 1 *Illustration of Report on Planned Staffing Levels*

Staff Groups	Planned Staffing Level ¹ April 1984— March 1985	Actual Staffing Level ² April 1984— March 1985	Planned Staffing Level ¹ April 1985— March 1986
—			
—			
—			

Notes ¹WTE—budgeted hours

²WTE—worked hours

2.20 The regions and the DHSS will require information about posts for planning and review purposes. Therefore, we **recommend** that each district send a return to region shortly after the operational planning intention for the year has been declared. Regions will then produce an annual summary including details of regional staff for submission to DHSS. An example of the summary information required about a district by DHSS is shown in Table II.

Table II *Illustration of information required by DHSS*

District Summary: Planned Staffing Level 198 /8	
Staff Groups	WTE (Budgeted Hours)
A. Medical and Dental i. Consultants ii. Training Grades iii. Other Medical and Dental Staff B. Nursing and Midwifery i. Management and Tutorial Grades ii. Qualified Nurses a. Registered Nurses (including HVs) b. Enrolled Nurses iii. Qualified Midwives iv. Nurse (including HV) trainees v. Trainee Midwives vi. Other nursing staff C. Professional and Technical i. Professions Allied to Medicine ii. Scientists iii. Technicians iv. Opticians and Pharmacists v. Medical Laboratory Scientific Officers vi. Others D. Works Professional E. Administrative and Clerical F. Ambulance (including Officers) G. Ancillary H. Maintenance (Building and Engineering)	

NOTE: Similar summary to be provided to cover regionally employed staff.

2.21 When a computerised regional medical manpower information system is implemented, the current problems of supplying information about medical and dental posts to DHSS will be eased. At that stage, we **recommend** that each region in association with the districts provide information regularly to DHSS about:

- a. the distribution of medical and dental posts in terms of whole-time equivalents by specialty, grade and district; and
- b. the number of vacant posts, by specialty and grade.

3 Information about Employees

Introduction

3.1 In developing a minimum data set for information about employees, only those items of data which need to be aggregated have been considered. No recommendations have been made concerning items which are required solely for personnel management in respect of an individual employee.

Minimum data set content

3.2 In terms of its information content the minimum data set can be divided into 6 categories, namely:

- a. personal data about the employee;
- b. data about position;
- c. data about the skill of the employee;
- d. data about absences from work;
- e. data about the cost of the employee; and
- f. data about staff leaving and joining.

3.3 The minimum data set will need to be collected on all health authority employees, including bank nurses. Because of the different nature of the terms and conditions of service for doctors and dentists some of the data relating to them have to be defined and classified separately. In addition, a few data items need be collected only for medical, dental and nursing staff.

3.4 For staff hired through agencies, it will only be feasible to collect data in relation to categories b., c. and e. above. We **recommend** that these data be collected.

PERSONAL DATA

3.5 We **recommend** that the following data items be recorded for all employees:

- a. unique personal number;
- b. date of birth;
- c. sex; and
- d. whether or not registered disabled.

Unique personal number

3.6 For the majority of staff groups we **recommend** that the unique personal number be the payroll number. Care will be necessary in the allocation of payroll numbers to avoid confusion between weekly and monthly paid staff.

3.7 For medical and dental staff we **recommend** that the unique personal number be the General Medical or Dental Council registration number. When the United Kingdom Central Council for Nursing, Midwifery and Health Visiting has established its register, consideration should be given to using this as a source for the unique personal number for these staff groups.

Registered disabled

3.8 We **recommend** that it be recorded whether or not an employee is registered as disabled. The inclusion of this data item will enable authorities to discharge their statutory obligation to record the proportion of registered disabled persons in the workforce. More detailed information about the nature of the handicap is difficult to classify and is only of use at the operational level where, in any case, such knowledge is available.

POSITION OF WORK

3.9 It is essential that managers know where their staff are working in order to exercise effective control over staff deployment and to relate manpower information to that about activity and finance. We **recommend** that the financial code (ie the appropriate cost centre/expense code or equivalent) be recorded for all employees.

3.10 Position must be identified at a sufficient level of detail to allow manpower, activity and financial data to be linked. We **recommend** that financial codes (ie cost centres or equivalent) be aligned to the level of departmental analysis which we are recommending for the district's financial purposes. This is shown in Annex II.

3.11 The proposed classification should cover adequately most NHS staff, since they do not move between positions to any great extent. Nurse learners, however, do move extensively within the district and we therefore **recommend** that they be coded to the school of nursing and their input to specialty and other types of costing be handled by apportionment.

3.12 If staff are employed in two or more management units in the district these should be recorded, as should the proportion of time spent in each position. Where appropriate geographical location should also be recorded.

EMPLOYEE SKILL

3.13 We **recommend** that the following data items be recorded for all employees:

- a. nature of work (occupation); and
- b. grade or skill level.

Nature of work

3.14 A system of occupation codes was first introduced in 1976 to enable information about the nature of the work in which non-medical employees were engaged to be recorded on a comparable basis, through payroll. Following a review of the codes in 1979, a new range of codes is now in use. However, the maintenance of accurate codes is a continuous and time consuming task and one to which few managers devote the requisite effort. Consequently the reliability of the information derived from occupation codes is suspect. Part of the problem is that the codes are collected through payroll although the codes have no relevance to an individual's pay. The demands of payroll management — to pay staff accurately and on time — take precedence. Another aspect of the problem seems to lie in the nature of the relationship between payroll staff and personnel departments. Personnel departments have the responsibility to inform payroll staff of changes in occupation codes and to stress the importance to the organisation as a whole of accurate information about occupation. They also need to impress upon managers the importance of notifying changes of duties which require an employee's occupational code to be changed. In authorities where there is

interest in and effort devoted to the accuracy of codes, the system is said to work well.

3.15 In the short term changes in management practice and constant reminders of the importance of the codes may be enough to improve their reliability. However, this is not a satisfactory long term solution.

3.16 Work undertaken in the South East Thames Region and in our pilot districts has convinced us of the feasibility of generating occupation codes automatically from Standard Accounting System (SAS) cost centre and expense codes (or their non-SAS equivalents). In the pilot trials, 76% of occupation codes could have been predicted accurately from financial codes and a further 12½% could have been given occupation codes more accurate than the ones assigned manually.

3.17 To achieve the required degree of accuracy, modifications will be required in the structure of some financial codes. For example, cost centres will need to relate to small groups of wards with a common purpose in order to identify particular specialties within care groups. Furthermore, some expense codes will need refinement, eg to distinguish between different categories of building staff and to identify different grades such as foremen, chargehands, etc.

3.18 Authorities may find it helpful to use generated occupation codes to validate the manually produced ones. If manpower information continues to be collected from payroll there is advantage in generated codes superseding the manual system. However, the introduction of a district manpower information system as described in Chapter 5 may make this inappropriate. We therefore make no firm recommendation.

3.19 For medical and dental staff we **recommend** that their current specialty or main specialty be recorded as their skill. Any other specialties in which they work for a significant proportion of time should also be recorded. Specialty should be derived from the individual's contract and be based on the Royal Colleges' and Faculties' recognised list of specialties. A current list is set out in Annex I. Arrangements should be made at DHSS to enable authorities to update this list regularly. Additionally, authorities may wish to record whether a junior doctor or dentist is undertaking vocational training, eg to be a general practitioner.

3.20 For medical and dental staff working in the community, skill will be deduced from information about the physician's grade and position.

Grade or skill level

3.21 In order to provide information about an employee's skill level and sphere of competence, we **recommend** that payscale code and incremental point be recorded for all non-medical employees.

3.22 For medical and dental staff, we **recommend** that the grade at which the doctor or dentist is employed be recorded.

ABSENCES FROM WORK

3.23 We **recommend** that absences from work should be recorded for all employees in a form which facilitates the presentation of information in terms of whole-time equivalents related to contract. Absences should therefore be recorded in terms of hours, notional half days, units of medical time or sessions, as appropriate, to allow them to be related to staffing levels to provide managers, as a minimum, with an indication of overall absence rates.

3.24 We **recommend** that time absent from work should be classified as follows:

- a. Annual leave;
- b. Bank holiday or other privilege holiday;
- c. Uncertified sickness;
- d. Self-certified sickness;
- e. Sickness certified by a medical practitioner;
- f. In-service training;
- g. Other training;
- h. Maternity;
- i. Authorised but for reasons other than a-h;
- j. Unauthorised.

3.25 We considered whether absence as a result of an accident at work should be recorded separately. Although there is a statutory obligation to maintain records of accidents, the problems of definition and overlap make separate identification in the minimum data set inappropriate. However, some districts may wish to sub-divide the categories concerning absence due to sickness by whether or not this was due to an accident at work.

3.26 The recording, analysis and presentation of data about absences will have resource consequences for health authorities who do not currently pursue an active policy for absence control. However, it is good practice for line managers to maintain their own records on absences of the staff for whom they are responsible. New arrangements concerning statutory sick pay and self certification have highlighted the need for an adequate absence record system for each employee flowing from line managers to the personnel and finance departments. Experience in some districts indicates that a comprehensive and enforceable policy on absences can significantly reduce absence rates. Thus the benefit in terms of more efficient use of available manpower should outweigh the cost of data collection and analysis, and secure the commitment of line managers to the system.

COSTS

3.27 We **recommend** that the following data items be recorded for all employees:

- a. hours of work;
- b. allowances; and
- c. gross payroll cost.

Hours of work

3.28 For staff other than medical and dental we **recommend** that hours of work be recorded in five categories, namely:

- a. Standard hours for the grade. The hours specified in the national terms and conditions of service for the grade. These provide the baseline for the calculation of whole-time equivalents.
- b. Contract hours. The hours an individual has contracted to work for the authority. These are of particular relevance to part-time staff for whom contract hours provide the basis for calculating whole-time equivalents for headcount purposes.
- c. Worked hours. The hours actually worked, or (if including paid absences)

notionally worked, either in the basic working week or as overtime. These provide an indicator of staff input.

d. Enhanced hours. The hours that are worked within the basic week or as overtime which attract additional payment.

e. Paid hours. These are the sum of basic and overtime hours worked plus the appropriate enhancement. Thus, for example, four hours overtime at 'time and a half' is equivalent to six paid hours. Paid hours provide the basis for calculating the cost of staff input.

3.29 For medical and dental manpower we **recommend** that employee availability or hours worked be obtained from doctors' and dentists' contracts. The following data should be obtained:

- a. nature of the contract;
- b. duration of the contract; and
- c. time for which doctor or dentist has contracted.

Experience in the pilot trials suggests that authorities may also find it useful to identify those doctors whose main contract is with another authority. We commend this as good practice.

3.30 We **recommend** that the nature of the contract be classified as follows:

- a. whole-time;
- b. maximum part-time;
- c. part-time;
- d. member of retainer scheme (as laid down in circular PM(79)3);
- e. honorary;
- f. whole-time/part-time locum; or
- g. locum filling a vacant post or covering for absences.

3.31 We **recommend** that the time for which a doctor or dentist has contracted be classified as follows:

- a. for consultants: the number of notional half days;
- b. for training grades: the number of units of medical time subdivided between basic, class A and class B; and
- c. for clinical medical officers: the number of sessions or hours.

Allowances

3.32 We **recommend** that data about allowances be recorded for all employees. This includes data about Distinction Awards for consultant staff.

3.33 While the substantive issue of the nature of allowances is not within our remit, we wish to place on record our concern about the proliferation of special allowances which, over recent years, has placed an undue burden on those who manage payroll and financial systems. We urge the Whitley Council and Pay Review Bodies to consolidate and simplify rates of remuneration at the earliest opportunity.

3.34 We **recommend** that all employees included in bonus schemes be identified, as district managers need to know the proportion of staff included in such schemes.

Gross payroll cost

3.35 We **recommend** that the gross payroll cost be calculated for each employee from data about hours worked, the allowances received and employers' costs. This will provide the basic data required for costing purposes to be charged against the appropriate budget.

JOINING AND LEAVING

3.36 Data about staff leaving and joining are used to indicate staff turnover and wastage rates and can provide valuable indications of staff morale and labour market trends. Data on recruitment is of use in planning recruitment drives and directing the use of training resources. We **recommend** that the following data items be recorded for all employees:

- a. date of joining post;
- b. date of leaving post; and
- c. reason for leaving and destination.

For medical, dental, nursing and paramedical staff, we **recommend** an additional data item:

- d. source of recruitment.

3.37 We **recommend** that reason for leaving or destination be collected for all employees but with differing levels of complexity for individual staff groups. The classifications are shown in Table III.

3.38 No attempt has been made to identify an individual's personal reason for leaving, partly because of the problems of obtaining correct factual information, but more particularly because the broad categories recommended are designed to show the main staff movements of interest to managers, i.e., staff turnover, wastage rates and career progress.

Table III *Destination/Reason for Leaving*

	Classifications for all staff	Additional classifications	
		Nurses + Paramedical staff	Doctors + Dentists
1. <i>Within NHS</i>	a. Transfer/promotion b. Same district/same Region/other Region	(c. adjacent Region/other)* (d. for further training/other)*	c. Same/different specialty d. General Medical/Dental practice
2. <i>To outside</i>	a. Retirement — any reason b. Maternity c. Redundancy d. Dismissal e. End of fixed term contract f. Death g. Voluntary resignation	h. Other similar employment (i) Private (ii) Other public agency (iii) abroad — EEC/other (iv) academic appointment † (v) other i. Different employment j. Not working	

*Optional secondary level of analysis

†doctors and dentists only

3.39 We **recommend** that the source of recruitment for medical, dental, nursing and paramedical staff should be recorded in the classifications shown in Table IV.

3.40 In the response to consultation representations were made about the need to have more detailed information about the movement of qualified nursing staff particularly in large cities such as London. When districts are able to collect joining/leaving data through computer based systems they may wish to adopt the more detailed level of classification shown as "optional" in Tables III and IV.

Table IV Sources of Recruitment

	Nursing and Paramedical Staff	Medical and Dental Staff
<i>Within NHS</i>		
a. Transfer/promotion	x	x
b. Same District	x	—
c. Same Region/other Region	x	x
(d. Adjacent Region/other	x)*	—
(e. Newly qualified/other	x)*	—
f. Same/different specialty	—	x
g. General medical or dental practice	—	x
<i>From Outside</i>		
a. Other similar employment		
(i) private	x	x
(ii) other public agency	x	x
(iii) abroad — EEC/other	x	x
(iv) academic appointment	—	x
(v) other	x	x
b. Different employment	x	x
c. Not working	x	x

*Optional analysis

x indicates the items of classification appropriate to the different staff groups

ADDITIONAL DATA ITEMS FOR DOCTORS AND DENTISTS

3.41 We **recommend** that the following additional data items be recorded for all doctors and dentists:

a. Personal data:

- i. country of birth;
- ii. country of primary medical or dental training;
- iii. month General Medical or Dental Council registration due for renewal;
- iv. type of General Medical Council registration;
- v. name of defence organisation and renewal date;
- vi. post number (see paragraph 2.10).

b. Data about skills:

- vii. postgraduate qualifications;
- viii. date of joining grade.

Country of birth and primary training

3.42 The balanced development of medical and dental training programmes requires information about the number of doctors and dentists working in the NHS who have completed part of their medical training overseas. We **recommend** that country of birth and country of primary medical or dental training be recorded as follows:

- a. United Kingdom;
- b. Eire;
- c. EEC country other than UK and Eire; or
- d. non-EEC country.

3.43 Country of birth is not always collected at present but there should be no difficulty in obtaining this information when a practitioner makes his initial application. In the interim report it was proposed that primary medical qualification be recorded but this item was difficult to collect in the pilot trials and the response to consultation showed that it is of little practical use.

Type of registration and defence organisation

3.44 In response to consultation it was suggested that the renewal date for registration would be a data item of use to district managers. This proved feasible to collect and thus it has been included in the minimum data set. The recording of the practitioner's defence organisation and the date on which the subscription is due for renewal will enable health authorities to check that medical and dental staff have the insurance cover which the terms of their contract require.

Qualifications

3.45 Information on medical and dental postgraduate qualifications is required for the effective deployment of staff, for service planning, the allocation of resources and for planning postgraduate medical and dental education. We **recommend** that data about postgraduate qualifications be recorded as follows:

Member of the Royal College of Physicians
 Member of the Royal College of Surgeons
 Member of the Royal College of Pathologists
 Fellow of the Royal College of Radiologists
 Member of the Royal College of Obstetricians and Gynaecologists
 Member of the Royal College of Psychiatrists
 Member of the Faculty of Community Medicine
 Fellow of the Faculty of Anaesthetists of the Royal College of Surgeons
 Member of the Faculty of Occupational Medicine
 Fellow in Dental Surgery.

Date of joining grade

3.46 This item is required to provide analyses of the length of time spent in training grades. We **recommend** that the date that a doctor obtains his first substantive post in the current grade should be recorded.

ADDITIONAL DATA ITEM FOR NURSES

3.47 We **recommend** that the following additional data item be recorded for all nurses, midwives and health visitors:

Data item about skills: qualifications.

3.48 By the summer of 1984, the United Kingdom Central Council for Nursing, Midwifery and Health Visiting (UKCC) will have established a single professional register for nurses, midwives and health visitors, derived initially from the existing separate record systems and maintained on a computer. The register will provide a comprehensive, accessible record of the personal details of each nurse/midwife/health visitor, the details of all registrable qualifications and any post-basic qualifications acceptable to the UKCC.

3.49 All employing authorities are being advised to confirm a nurse's registration status with the UKCC prior to appointment to ensure that a nurse has a legal right to practice. This will also provide the opportunity for authorities to obtain an up-to-date listing of nurses' qualifications. Access to the register in the initial stages will be via a nurse's registration number(s), but eventually the intention is to introduce a personal identification number for each nurse. The UKCC are considering charging authorities a flat fee for access to the register, regardless of the number of requests made. We consider it sensible that the UKCC should be the source from which data on nurses' qualifications be collected. Health authorities will need to consider the means of holding these data in a form suitable for analysis and for relating to other manpower information. We therefore recognise that the timescale for implementing a comprehensive system for storing and utilising nurse qualification data may be significantly longer than that for implementing the remainder of the data set.

**DATA ITEMS
CONSIDERED BUT
NOT INCLUDED IN THE
MINIMUM DATA SET**

3.50 During the various phases of discussion, consultation and piloting leading to the production of this Report, many suggestions have been made about additional items to be included in the data set. However, none has met the three criteria of being required by district managers, being easy to collect and code and being affordable in all districts in the next three years. Items put forward include:

- a. for all employees—ethnic origin;
- b. for all employees—deductions from pay; and
- c. for employees other than doctors, dentists and nurses — qualifications.

Ethnic origin

3.51 Employers have statutory obligations and a consequent need to collect specific items of data when introducing an equal opportunities policy. However, the scope of these data, encompassing, for example, information on all unsuccessful applicants for a particular job, goes beyond the main concern of this Report. The Commission for Racial Equality (CRE) has developed a Code of Practice, now endorsed by Parliament, to assist employers in meeting their statutory obligations. This came into effect on 1 April 1984. We **recommend** that health authorities seek advice from the CRE in developing suitable arrangements for collecting data to monitor an equal opportunity policy.

Deductions from pay

3.52 Pay deductions are not routinely required to provide information for manpower control and thus this item is not included in the minimum data set.

**Qualifications for other
employees**

3.53 Representations have been made that data about qualifications should be collected about all staff, not only doctors, dentists and nurses. The data are difficult to collect and more difficult to aggregate for management purposes. In view of our doubts about the value of such information to management we make no recommendations.

4 Information to be available nationally about employees

Introduction

4.1 The majority of the information available nationally about NHS employees derives from two separate annual censuses: one of non-medical and one of medical and dental manpower. Both are obtained from the records of each person in employment on 30 September. For non-medical manpower this information is drawn from regional payrolls. For medical and dental manpower the information is collected manually.

4.2 Additionally for pay negotiation purposes, the Earnings Related Base of Data (ERBOD) — a recently developed computer based system — draws cumulative information from Standard Manpower Planning & Personnel Information System (STAMP) user Regions on payments made, grouped by individual payscale and by each type of allowance and deduction. While theoretically covering all staff groups, the information for doctors and dentists is little used because of doubts about its accuracy.

4.3 The DHSS and other central bodies need information about employees for:

- a. Policy development and planning. Detailed information is required in considering future staffing levels and the distribution of training resources, particularly for those staff groups for whom the NHS is the main agency for training.
- b. Terms and conditions of service. Information is required by the DHSS, the Whitley Councils and the Pay Review Bodies to support negotiations over levels of remuneration; to measure the effect of current remuneration levels; to assess the effect and cost of future pay awards; and to assess the career earnings of doctors and dentists.
- c. Accountability. Health Authorities are accountable to the Secretary of State and the Secretary of State to Parliament for the setting of policies and priorities for the use of NHS resources and for the efficiency and effectiveness with which the resources are used. Within the Regional Review process, information is required to provide a national framework against which health authorities can assess their own position and an agreed data base from which to discuss progress.

4.4 It is one of our basic premises that data for central use should be derived from information used for local management purposes. This will lead to improvements in the accuracy of the data provided for national use and increase confidence in the data produced, which is vital if the quality of the dialogue along the chain of accountability is to improve. We do however accept that centralised pay negotiations and public and Parliamentary interest in public sector employment may justify central requirements for information in a form not routinely required by local management.

4.5 In spite of the time and effort devoted by the Working Group during the second phase of its work to the identification of central data requirements and a format for national returns, it proved difficult to reach agreement about the

level of detail of the data to be made available centrally. In principle we support the provision of returns of aggregated data related to each district and regional unit and supplied to the Department via regions. However, the number of such returns and the detailed level of analysis required to provide satisfactory information for pay, planning and Parliamentary purposes are such that we have grave doubts about the present ability of the NHS to provide them. Only when local manpower information is fully computerised will the change-over to aggregated returns, which we would wish to see, be possible.

4.6 In the remainder of this Chapter we:

- a. outline the categories of information on which returns will be required when that stage is reached; and
- b. make recommendations for the interim.

NON-MEDICAL MANPOWER

4.7 In the long-term, aggregated returns will be required on:

- a. Staff in contract
- b. Manpower resources
- c. Manpower costs
- d. Absence rates
- e. Joiners and leavers
- f. Nurse qualifications.

Staff in contract

4.8 Until progress in local computing allows, we **recommend** that current national arrangements for the collection of individualised data, once annually, should continue. We do not attempt to define the detail of returns which will eventually be required as we recognise that requirements may change. However, we envisage that an analysis of the number, WTE (contract hours), payscale, occupation code and sex of non-medical staff will be required for the foreseeable future. We **recommend** further discussion of the central provision of such data in an appropriate NHS/DHSS forum when computing capacity is sufficiently developed.

Quarterly count

4.9 Because of the strong current interest in the level of employment in the public sector, we acknowledge the need for broad manpower figures on a quarterly basis. We have recommended (paras 2.15-2.19) that overall control of manpower should be based on the comparison of the actual staff resources consumed with planned staffing levels rather than on a snapshot of numbers employed, as we believe this will provide a better yardstick not only for local management but also for Ministers and Parliament. While we recognise that "headcounts" may be seen to be important in the context of national employment strategies, we **recommend** that the need for the current quarterly count should be kept under review.

Manpower resources

4.10 We **recommend** introducing, as a priority, an analysis of manpower resources expressed in WTE (worked hours). A cumulative quarter by quarter return will be required for comparison with the return illustrated at Table II (Chapter 2) to indicate progress towards planned staffing levels throughout the year. This information will also allow manpower input to be related more directly to information on activity and expenditure over the same period and so contribute to debates on the efficiency and effectiveness of staff.

Manpower costs

4.11 We strongly support the provision of accurate and reliable data on manpower costs to provide background information for pay negotiations. The ERBOD system currently relates mainly to regions who use the Standard Payroll System (SPS) and who have adopted STAMP. We consider that the regions not currently participating should attempt to provide compatible data as soon as possible. This will enable national figures to be drawn up which we consider DHSS should make available to regions.

Absence rates; joiners and leavers

4.12 The introduction of a requirement to submit returns to the DHSS on absence rates and "joiners and leavers" is critically dependent on the availability in districts of computers providing manpower information. In broad terms information will be required about:

- a. absences as a percentage of total available manpower resources (by staff group); and
- b. "joiners and leavers" to demonstrate movement into, out of and within the NHS (particularly for staff groups for whom the NHS is the main agency of training) — to provide an indication of staff morale and labour market trends.

The format and degree of detail of such returns must be left for later discussion.

Nurse qualifications

4.13 We recognise in the minimum data set for employees that information is required about nurses' qualifications. We have suggested that districts will wish to make use of the information held by the UKCC. We suggest that for general information on nurses' qualifications the DHSS will also wish to make use of the information held at that source. When information on nurses' qualifications is available within all districts there may be merit in the introduction of a national return to compare nurses' professional qualifications with their current area of work. It would however be premature to recommend a format for such a return now.

MEDICAL AND DENTAL STAFF

4.14 We recognise that there are particular requirements for information about medical and dental staff. Much attention has been given over recent years to maintaining a comprehensive index of medical staff to provide information for medical manpower planning. The index, which covers all doctors in the United Kingdom, whether in the employment of health authorities, GPs, in private practice or currently not working, is used to provide information both on the current distribution of doctors and their movements.

4.15 Following the Review of the Government Statistical Services by Sir Derek Rayner, a Study Group on Medical Manpower Information was set up in 1981 to consider, amongst other things, the statistics "really necessary" for medical manpower planning and the relevance, practicability and cost of retaining the index. The Group concluded that the central collection and analysis of data about individuals were essential to an effective system of medical manpower planning. They saw no other way of building up the necessary information base.

4.16 Despite our strong preference for aggregated returns in general, we recognise the weight of opinion represented by the Study Group and the

problems of obtaining the information needed for medical manpower planning. Reluctantly, therefore, we accept that returns related to individual medical and dental staff should continue to be provided. We do, however, **recommend** that there should be a further study within 3 years of the implementation of this Report. By then there should be sufficient experience of operating the regional medical manpower information systems we advocate in Chapter 5 to provide an improved basis for discussion. We should wish to see the study covering the following:

- a. an examination of the use which has been made of individualised data;
- b. examination of alternative ways of achieving the same ends, including consideration of: the means of capturing data on the movement of doctors at least as accurate as that now obtained; the provision of a sampling frame for doctors working outside the NHS or not working; and the provision of a sampling frame for NHS consultants;
- c. comparative costs of the existing system and any alternatives proposed.

4.17 We have already referred to the acknowledged problems of the accuracy of data about medical manpower costs collected through ERBOD. We **recommend** that attention should be given to improving the accuracy and thereby usefulness of these data. This will only be achieved by focusing local attention on the importance of accurate coding for pay purposes.

4.18 We **recommend** that national returns on the absences of medical and dental staff should be introduced at the same time and in the same format as the return on absences for non-medical manpower.

5 An integrated manpower information system

Introduction

5.1 The use of computer systems and information technology are implicit in many of our recommendations. As the prime responsibility for national policy in these areas lies with the NHS Computer Policy Committee, we confine ourselves to the broad principles of the systems we would commend. We consider non-medical manpower information systems and systems for medical and dental manpower separately.

NON-MEDICAL MANPOWER

Current information systems

5.2 Information about non-medical manpower is currently available in 10 Regions through STAMP which relies on data collected through SPS and enables a manpower file to be held at regional level. A series of standard reports are obtainable and some regions use the more flexible "Design-a-Form" or similar facility which allows authorised users to interrogate the main file and extract data.

5.3 A variety of arrangements exist in the regions that have not adopted STAMP, but traditionally they all rely on extraction of data from payroll and on regional computing facilities.

5.4 The major criticisms of STAMP and similar payroll related systems are:

- a. the requirements of manpower information take second place to the requirements of payroll;
- b. doubts about the reliability of data not directly related to pay, eg occupation codes or data about newly joined staff;
- c. loss of manpower data over time;
- d. potential incompatibilities with information provided by the Standard Accounting System;
- e. indigestible standard reports;
- f. few districts with direct access to data and delays in regional responses to ad-hoc queries.

A non-medical manpower information system

5.5 The collection and analysis of the data items recommended in this Report will enable managers to exercise control over the use of manpower and the related financial resources, and to examine how effective that use has been. However, for this to be realized a corporate approach to the provision of this information must be adopted in full recognition of the fact that (subject to the constraints of confidentiality) manpower information must be freely available to all those involved in the management process.

5.6 To provide the mechanism to meet these needs a data system must be:

- a. flexible: to provide scope for different analyses of the basic data;
- b. integrated: to prevent duplication in data collection;
- c. accessible: to ensure that information is available to those who need it when they need it.

5.7 The minimum data set for non-medical employees can be collected and processed in a number of ways:

- a. via the regional payroll with basic local interrogation facilities;
- b. via the regional payroll with interactive facilities;
- c. at district level as part of an integrated management information system.

5.8 The majority of data items recommended are already collected via payroll. Modifications to be made to the Standard Payroll System will expand the facility to record absences and the reason for leaving employment. However, as these items are not directly relevant to the operation of the payroll, there may be problems of timeliness and reliability. Adding the facility to record qualifications via payroll would face similar difficulties.

5.9 Perhaps the major disadvantage of relying on the payroll system, drawn to our attention many times in consultations, is the difficulty of achieving timely access to the information held there. Better access to information is the key to its better use and better use is the key to improving the quality of the basic data. The improvements we seek cannot therefore be secured without improvements in the arrangements by which district management have access to their district's manpower information. Although interrogation facilities provide a degree of direct access, they do not provide the flexibility of data analysis district managers need to be fully effective.

5.10 A fully interactive system can provide districts with significantly improved access via terminals to the data held on the regional computer. It can also provide the opportunity to transfer data to local equipment for retention and analysis. The user may be able to define his own report layouts and may have the facility to amend items on the main file by input from a terminal. However, as such a system will be based on data derived from payroll, any updating will be overwritten by the following payroll run. Permanent updating would be via the payroll system, thus duplicating data collection. The opportunity for districts to add additional data of strictly local relevance may be limited.

5.11 A more satisfactory way of meeting the criteria in paragraph 5.6 would be through the introduction of a district manpower information system which would be:

- a. comprehensive;
- b. integrated with the payroll system, to feed information to it and draw information from it; and
- c. capable of being interfaced directly with the accounting system to facilitate the link with budgetary control, costing processes and financial systems.

5.12 Initially the system would hold data enabling the production of a basic personnel record for each employee. This would provide input to the payroll

system and in turn data would be taken from payroll (eg attendance data) for later interrogation and analysis. In the long term, a manpower system might pick up all the prime data, eg hours of attendance, from the point at which they are generated and pass it to, for example, payroll. The system should be capable of rapid expansion to include other personnel details, eg related to training. The system should also provide a comprehensive range of updating, enquiry and report generation facilities.

5.13 A district based manpower information system can best meet district management's needs for flexibility, integration and access and we commend its introduction. The design should take account of the findings of the "Database" study currently being conducted by the NHS Computer Policy Committee.

MEDICAL AND DENTAL MANPOWER

Current information systems

5.14 In most regions records are maintained manually to produce information about senior medical and dental staff and about training posts. Five regions have computer based systems of varying sophistication. A study is currently being conducted by the Council for Postgraduate Medical Education into the feasibility of collecting and providing, on a national basis, information on medical and dental training posts and trainees.

5.15 Medical staffing is subject to constant change and the updating of information about medical staff is therefore a time consuming task, especially in a manual system. It is likely to be undertaken only when other pressures permit. Data may be accurate only once a year, when updated for the annual census.

5.16 At present many districts have no comprehensive information on their medical posts or the senior medical staff employed by the Regional Health Authority.

Future developments

5.17 While RHAs will wish to consider the relative merits of payroll-related systems and independent arrangements, we believe most will wish to adopt separate dedicated computer systems and we commend this course of action. It will allow for the eventual linkage of the data related to posts and the data related to post holders. With such a system the link with payroll for costing purposes can be achieved through the use of the appropriate identifying numbers for posts and post holders.

5.18 If districts are to make the best use of such developments, the medical minimum data sets need to be a shared resource. We anticipate that computer assistance will be needed at district level to provide access to the regional data base and to provide districts with the facility to add further data items.

5.19 The construction of systems to collect and process all the data recommended for medical and dental posts and employees is a major undertaking. We **recommend** that as a first step each region should give priority to introducing a system to provide a directory of all its medical and dental posts. Subsequently the sensible order for implementing systems related to employee data might be:

a. Consultants and other senior staff

b. Senior Registrars

c. Registrars

d. other training grades

e. other staff, eg. clinical assistants and locums.

} built up on a
district by
district basis

The use of common documentation (eg application forms) by all employing authorities within a region will facilitate these developments.

Confidentiality

5.20 Appropriate safeguards on the confidentiality of personal data about individual staff are essential to the proper use of the information. This aspect is the subject of a separate Report by the Steering Group.

Summary of recommendations

Chapter 1: Introduction to the Report

1. There should be a review of the data requirements for manpower planning when the data sets proposed for control have been fully implemented and in use for at least 12 months. (paragraph 1.4)

Chapter 2: Information about posts

2. The recommended minimum data items for medical and dental posts are:
 - Skill (paragraphs 2.5-2.6)
 - Location (paragraph 2.7)
 - Volume (paragraph 2.8)
 - Cost (paragraph 2.9)
 - Nature (paragraph 2.10)
3. For all other posts the recommended minimum data items are:
 - Skill (paragraph 2.11)
 - Position (paragraph 2.12)
 - Volume (paragraph 2.13)
 - Cost (paragraph 2.14)
4. Districts should declare annually, at a time to accord with the planning cycle, the operational intention for staffing levels in the coming financial year, expressed in whole-time equivalents (budgeted hours) for each of the main staff group. (paragraph 2.18)
5. Districts should annually record the actual consumption of manpower resources over the financial year expressed in whole-time equivalents (worked hours) for each of the staff groups. (paragraph 2.19)
6. Each region should submit annually a summary of planned staffing levels throughout the region to DHSS. (paragraph 2.20)
7. Each region should provide information to DHSS on the distribution of medical and dental posts throughout the region and on the number of vacant posts. (paragraph 2.21)

Chapter 3: Information about employees

8. For staff hired through agencies data should be collected on position, skill and cost. (paragraph 3.4)
9. The data items to be recorded in the following categories are listed:
 - a. Personal data (paragraph 3.5)
 - b. Position (paragraph 3.9)
 - c. Employee skill (paragraph 3.13)
 - d. Absences (paragraph 3.23)
 - e. Costs (paragraph 3.27)
 - f. Joining & Leaving (paragraph 3.36)

10. Classifications for the following data items are described:
 - a. Unique personal number
 - i. majority of staff (paragraph 3.6)
 - ii. medical & dental staff (paragraph 3.7)
 - b. Registered disabled (paragraph 3.8)
 - c. Position
 - i. level of analysis (paragraph 3.10)
 - ii. nurse learners (paragraph 3.11)
 - d. Skill — medical and dental staff (paragraph 3.19)
 - e. Skill level — non-medical employees (paragraph 3.21)
 - f. Grade — medical and dental staff (paragraph 3.22)
 - g. Absences (paragraph 3.24)
 - h. Hours of work
 - i. non-medical employees (paragraph 3.28)
 - ii. medical and dental employees (paragraphs 3.29, 3.30, 3.31)
 - i. Allowances (paragraph 3.32)
 - j. Bonus schemes (paragraph 3.34)
 - k. Gross payroll cost (paragraph 3.35)
 - l. Reason for leaving or destination (paragraph 3.37)
 - m. Source of recruitment (paragraph 3.39)
11. The additional data items to be recorded for doctors and dentists are listed:
 - a. Personal data (paragraph 3.41)
 - b. Data about skills (paragraph 3.41)
12. Classifications for the following data items are described:
 - a. Country of birth and of primary medical or dental training (paragraph 3.42)
 - b. Qualifications (paragraph 3.45)
 - c. Date of joining grade (paragraph 3.46)
13. The following additional data item is recommended for nurses, midwives and health visitors:
 - Qualifications (paragraph 3.47)
14. Health authorities should seek advice from the Commission for Racial Equality in developing arrangements for collecting data to monitor an equal opportunity policy. (paragraph 3.51)

Chapter 4: Information to be available nationally about employees

15. The aggregated returns on non-medical manpower which will be required in the long-term are listed. (paragraph 4.7)

16. Current national arrangements for collecting individualised data on non-medical employees, once annually, should continue until computing developments allow for the submission of aggregated returns.

(paragraph 4.8)

17. The need for the quarterly count should be kept under review.

(paragraph 4.9)

18. An analysis of manpower resources expressed in WTE (worked hours) should be introduced as a priority.

(paragraph 4.10)

19. Data on individual medical and dental staff should continue to be made available centrally, but the need for this should be reviewed within three years of the implementation of this report.

(paragraph 4.16)

20. Attention should be given to improving the accuracy of the data on medical and dental manpower costs available through ERBOD.

(paragraph 4.17)

21. In the longer term a return should be supplied on the absence of rates of medical and dental staff.

(paragraph 4.18)

Chapter 5: An integrated manpower information system

22. We commend the introduction of a district based manpower information system.

(paragraph 5.13)

23. We commend the introduction of a dedicated computerised system for medical manpower information.

(paragraph 5.17)

24. First priority in the medical and dental field should be given to the introduction of a directory of medical and dental posts.

(paragraph 5.19)

25. Systems relating to medical and dental employee data might be built up on a grade by grade, district by district basis.

(paragraph 5.19)

Designation of Medical or Dental Skill

Specialties currently recognised by Royal Colleges

I The Royal College of Physicians currently recognises the following specialties:

- a. Audiological medicine
- b. Cardiology
- c. Clinical genetics
- d. Clinical neuro-physiology
- e. Clinical pharmacology
- f. Clinical physiology
- g. Dermatology
- h. Thoracic medicine
- i. Endocrinology and diabetes
- j. Gastro-enterology
- k. General medicine
- l. Genito-urinary medicine
- m. Geriatric medicine
- n. Haematology (clinical)
- o. Infectious diseases
- p. Medical oncology
- q. Nephrology
- r. Neurology
- s. Nuclear medicine
- t. Occupational medicine
- u. Paediatrics
- v. Paediatric neurology
- w. Rheumatology and rehabilitation

II The Royal College of Surgeons currently recognises the following specialties:

- a. Accident and Emergency
- b. Anaesthetics
- c. Cardiothoracic surgery
- d. Dental surgery
- e. ENT

- f. General surgery
- g. Neurosurgery
- h. Ophthalmology
- i. Orthodontics
- j. Orthopaedics
- k. Paediatric surgery
- l. Plastic surgery
- m. Restorative dentistry
- n. Urology

III The Royal College of Pathologists currently recognises the following specialties:

- a. Blood transfusion
- b. Chemical pathology
- c. General pathology
- d. Histopathology
- e. Immuno-pathology
- f. Medical microbiology
- g. Neuropathology

IV The Royal College of Radiologists currently recognises the following specialties:

- a. Radiology
- b. Radiotherapy

V The Royal College of Obstetricians and Gynaecologists currently recognises:

Obstetrics and Gynaecology

VI The Royal College of Psychiatrists currently recognises the following specialties:

- a. Child and adolescent psychiatry
- b. Forensic psychiatry
- c. Mental handicap
- d. Mental illness
- e. Psychotherapy

VII The Royal College of General Practitioners currently recognises:

General Practice

Employee Position: Recommended Analysis

A. HOSPITAL SERVICES — PATIENT TREATMENT SERVICES

- a. Wards¹
- b. Outpatient Clinics
- c. Day Care Facilities
- d. Accident & Emergency departments
- e. Radiotherapy departments
- f. Audiology
- g. Chiropody
- h. CSSD
- i. Dental Surgery
- j. Dietetics
- k. Electrocardiography
- l. Electroencephalography
- m. Industrial Therapy
- n. Medical Illustration & Photography
- o. Medical physics
- p. Nuclear medicine
- q. Occupational Therapy
- r. Operating Theatres
- s. Optical Services
- t. Pathology
 - i. Chemical Pathology
 - ii. Haematology
 - iii. Histopathology
 - iv. Microbiology
 - v. Blood Transfusion Supplies
- u. Pharmacy
- v. Physiotherapy & Remedial Gymnastics
- w. Psychology
- x. Radiology
- y. Social Work Support (A&C staff supporting social workers)
- z. Speech Therapy
- aa. Miscellaneous Patient Treatment Services

¹Wards to be sub-divided into small groups of wards with a common purpose

B. COMMUNITY HEALTH SERVICES — PATIENT TREATMENT SERVICES

- a. Medical Staff Services
- b. Dental Staff Services
- c. Nursing Services
 - i. District Nursing
 - ii. Health Visiting (including School Nursing)
 - iii. Psychiatric Nursing
 - iv. Mental Handicap Nursing
 - v. Midwives
 - vi. Other Nursing
- d. Audiology
- e. Chiropody
- f. Health Programme Support:
 - i. Health Education
 - ii. Vaccination and Immunisation
 - iii. Family Planning
 - iv. All other
- g. Occupational Therapy
- h. Optical Services
- i. Pathology
- j. Pharmacy
- k. Physiotherapy & Remedial Gymnastics
- l. Psychology
- m. Radiology
- n. Speech Therapy
- o. Other Patient Treatment Services

C. PATIENT TRANSPORT SERVICES

- a. Headquarters Administration
- b. Operational Services
 - i. Control Services
 - ii. Ambulance Stations
 - iii. Other ambulance Services

D. GENERAL SERVICES²

- a. Catering
- b. Laundry
- c. Linen
- d. Administrative Office
- e. Medical Records
- f. Training and Education
- g. Domestic/cleaning
- h. Portering
- i. Transport

²To be available for each hospital (site)/clinic/centre/ambulance station

- j. Estate Management:
 - i. Engineering maintenance
 - ii. Building maintenance
 - iii. Energy
 - iv. Water and Sewerage
 - v. Grounds and Gardens
- k. Staff Residences/Houses
- l. Miscellaneous

E. HQ ADMINISTRATION

- a. General Administration
 - i. Administrator's Office
 - ii. Personnel
 - iii. Supplies — procurement
 - iv. Legal
 - v. Public Relations
 - [vi. FPS Administrator's Office]
- b. Finance
- c. Medical Administration
- d. Dental Administration
- e. Patient Transport Services Administration
- f. Scientific Administration
- g. Pharmaceutical Administration
- h. Nursing Administration
- i. Works and Maintenance Administration
- j. Catering Administration
- k. Domestic Administration
- l. Other Administration
- m. Management Services
 - i. Work Study and Organisation and Methods
 - ii. Statistics
 - iii. Operational Research
 - iv. Computer
 - v. Other
- n. Training and Education
- o. Office Services
- p. Other Services
 - i. Catering
 - ii. Domestic/Cleaning
 - iii. Portering
 - iv. Transport
 - v. Estate Management

Factors affecting the resource consequences of implementation

1. The resource consequences of implementing our recommendations are difficult to quantify because:
 - a. the cost of present information systems is not known;
 - b. an agreed methodology for costing information is not available;
 - c. regions and districts have developed systems to differing degrees;
 - d. both for medical and non-medical systems different computer solutions are feasible;
 - e. regions and districts are at different stages in planning future computer-based developments.
2. In piloting our interim recommendations, the pilot districts were asked to assess the resources required to collect and use the data. However, not all the recommendations were piloted and there have subsequently been refinements to our recommendations. The pilot studies can, therefore, offer only limited assistance.
3. It is, however, possible to identify the factors which will affect the cost of implementation.

Non-medical manpower

4. We distinguish between two computer solutions:
 - a. enhancement of existing payroll and related systems;
 - b. the introduction, which we commend, of a district manpower information system.

Enhancement of existing systems

5. If authorities continue to rely on payroll-based systems the additional cost of our recommendations will fall into 4 parts:
 - a. costs of collecting the additional data items;
 - b. costs of improving access to data derived from regional payroll;
 - c. costs of analysing the data;
 - d. cost of initial exercise to update staff records.
- a. *Additional items*
 6. In pilot trials we attempted to assess the cost of collecting data on absences and "joiners and leavers". Cost estimates ranged from £2,500 per annum to input the data into existing computer systems to £5,500 per annum to process the data manually. Our recommendation for a data item on nurse qualifications, added as a result of consultations, has not been piloted. The cost to each district will depend partly on the level of fee eventually levied by the UKCC for access to their register and partly on the extent of the development of computer facilities for local storage of the data.

7. The cost of collecting and processing these additional items will be critically affected by the number of staff employed in the district and the extent to which existing systems can be expanded to cope.

b. Improved access

8. Gaining timely access to manpower data is crucial. Continued reliance on a payroll-based system would therefore require far more local computer facilities either to receive data from the regional computer for local interrogation or to provide improved direct access facilities to regionally-held manpower data.

c. Analysis

9. There will be resource consequences flowing from the analysis of data (both the additional items and those already collected) into formats useful for management purposes at different levels in the organisation. This will involve the expenditure of management time as well as additional clerical help. Without improvements to district computing systems it must be doubtful whether support staff could produce useful and timely reports based on up-to-date data for costing and for manpower budget-holders.

**An integrated manpower
information system**

10. Many regions and districts will already be considering the kind of integrated manpower information system commended in Chapter 5. We are unable to estimate the proportion of the costs, which will be incurred in introducing such systems throughout the NHS, which should be regarded as attributable to the implementation of our proposals.

11. The cost will fall into 3 parts:

- a. capital costs;
- b. transitional revenue costs;
- c. long-term revenue costs.

a. Capital

12. The capital cost will depend on the type of system chosen, the extent of existing district computing facilities, the number of staff to be covered, etc. We consider that it will be more cost-effective to invest the required capital in a purpose-built manpower information system than to face the recurring staff costs needed to collect and process the data either through an enhanced payroll system or a variety of additional ad hoc arrangements.

b. Transitional revenue costs

13. The main components of the transitional costs are:

- a. the cost of implementing the system. This will include the staff time to update existing records and input them into the new system;
- b. software development — although “off-the-shelf” software packages may prove suitable; and
- c. costs incurred in training all appropriate staff in the use of the system.

c. Long term revenue costs

14. Some recurring maintenance costs can be expected but we do not consider the introduction of a district manpower system has major staffing implications. Some transfer of staff resources within districts may be required.

Medical and dental information system

15. We have suggested that regions will wish to introduce a dedicated computer system for medical and dental manpower information to ensure the regular maintenance of up-to-date data. We are unable to suggest detailed costings because of the differing stages regions have reached in developing computerised medical manpower information systems or in developing a policy for their future introduction.

16. Hardware costs at region would depend primarily on the system chosen, which in turn depends on the numbers of staff to be covered and the extent of archiving required. Development costs will depend on the desired speed of implementation but initial development costs for the regional aspect might be of the order of £10-15,000. Recurring running costs at the region might be a further £12,000 per annum. Hardware costs at district level will depend on the degree of direct access required and the number of communication links with the regional data base. On district running costs our pilot trials suggested that some 30-40 hours of clerical effort would be required in each district to compile the basic data but no significant increase in resources on a continuous basis was foreseen.

National returns

17. While individual returns drawn from regional payrolls and analysed centrally continue there are few resource consequences to be considered. The returns on planned staffing levels recommended in chapter 2 will be drawn from information being produced for use by local managers. The cost is therefore restricted to the regional resources required to produce a regional summary. However, as similar information has been required in recent years in the form of manpower targets, no additional costs should be incurred.

19. Although in Chapter 4 we have not recommended specific aggregated returns to be submitted to the DHSS in the immediate future, it is essential to move towards aggregated returns as soon as possible. The cost of introducing the local computing facilities, on which the provision of aggregated returns depends, is not attributable to the national returns as these returns will be a by-product of the data then being produced for operational purposes. We do, however, foresee potential additional costs at the regional level in aggregating the returns from the districts. To a certain extent this should entail a transfer of resources rather than an absolute increase as there should be some compensating savings arising from the reduction in the effort required centrally.

Summary

20. Although it has been possible to identify most of the factors which will influence the resource consequences of implementing and running the systems to handle our proposals, it has not been possible to quantify them. The most significant costs will derive from the enhancement of district computing to provide an integrated manpower information system and from the introduction of a medical manpower information system where a sufficiently sophisticated one does not already exist. At district level with appropriate changes in organisation it should be possible to run a new fully computerised system without major additional recurring costs.

Composition of the Steering and other Groups

1 The Steering Group

The following are or have been members of the Steering Group: past members are indicated with an asterisk.

Mrs E Körner	Chairman
Mrs G T Banks	Under Secretary, DHSS (from July 1982)
Dr H E A Carson	DMO, Richmond, Twickenham and Roehampton Health Authority (from July 1982)
*Mr D de Peyer	Under Secretary, DHSS (to July 1982)
*Mr J Elkington	Consultant, Arrowe Park Hospital, (to April 1983) (for Joint Consultants Committee)
*Dr N J B Evans	Deputy Secretary, DHSS (to November 1982)
Mr M Fairey	Regional Administrator, North East Thames RHA
Mr G Greenwood	District Treasurer, Wirral Health Authority (from May 1982)
Dr M Goldacre	Regional Specialist in Community Medicine, Oxford RHA
*Dr G Guest	Regional Management Services Officer, Wessex RHA (to January 1984)
Mr K Heron	District Administrator, Huntingdon Health Authority (from January 1983)
Professor W Holland	Department of Community Medicine, St Thomas' Hospital, London
Dr A Jennings	Consultant, Northampton General Hospital (from July 1980 for Joint Consultants Committee)
Miss J I Jones	RNO, West Midlands RHA
*Mr R Jones	District Administrator, Frenchay Health Authority (to September 1982)
*Mr R Lawrence	Area Treasurer, Wirral Health Authority (to April 1982)
*Mr R Myall	Regional Treasurer, North West Thames RHA (to April 1982)
Mr D Pace	Regional Treasurer, South West Thames RHA (from May 1982)
*Mrs A Poole	Deputy Chief Nursing Officer, DHSS (from September 1981 to December 1982)
*Dr R Rowe	Area Medical Officer, Dorset Health Authority (to April 1982)

*Dr C F Scurr	Consultant, Westminster Hospital, London (to June 1980 for Joint Consultants Committee)
Mr A R Smith	Director of Statistics and Research, DHSS
Dr E Shore	Deputy Chief Medical Officer, DHSS (from January 1983)
Mr A R Thatcher	Registrar-General, OPCS
*Dr W Turner	Regional Medical Officer, Yorkshire RHA (to December 1984)
Dr W Wild	Regional Medical Officer, South West Thames RHA (from January 1984)
Miss P Wright-Warren	Deputy Chief Nursing Officer, DHSS (to September 1981 and from January 1983)

The Secretariat has been provided by:

Mr P Davies	Principal, DHSS (from February 1983)
*Mr J M Dunning	Principal, DHSS (to August 1983)
Mrs M Fry	Principal, DHSS (from August 1983)
*Mr C Hogan	Statistician, DHSS (to January 1983)
Dr A Mason	Senior Medical Officer, DHSS
Mr R Willmer	Statistician, DHSS (from October 1982)

**2 Working Group E
(Manpower)**

The following were associated with the work of this Group; the job titles refer to the posts held when the work was in progress; members who joined the Group for work in connection with the identification of central data requirements are identified by an asterisk:

Professor J R Perrin	Joint Director, Centre for Research in Industry and Administration, University of Warwick.
Mr M Callingham	District Finance Officer, Southampton Health Authority
*Mr C Dobson	Principal, DHSS
Miss L Duffield	Principal, DHSS (to May 1982)
Mr J M Dunning	Steering Group Secretariat
Miss J Flindall	District Nursing Officer, Oxford Health Authority
Mr K Ford	District Treasurer, Bromley Health Authority
*Mr K G Gardner	Principal, DHSS (from January 1983)
Dr G Guest	Regional Management Services Officer, Wessex RHA
*Ms Harrison	Assistant Staff Side Secretary, General Whitley Council
Mr D Hague	Regional Administrator, Northern RHA
Mr B Hopper	Senior Executive Officer, DHSS (from July 1982 to January 1983)
Mr R Jones	District Administrator, Frenchay Health Authority
*Mr S Lord	Statistician, DHSS
Mr B Morden	District Personnel Officer, East Suffolk Health Authority

Dr G Pledger	District Medical Officer, Northumberland Health Authority
*Mrs B Rivett	Nursing Officer, DHSS
Miss M Robson	Chief Statistician, DHSS
Mrs I Rowe	District Nursing Officer, West Surrey Health Authority
Mrs V Rushworth	Nursing Officer, DHSS
Dr G Todd	Regional Specialist in Community Medicine, Trent RHA
Mr D Warlow	Regional Personnel Officer, South East Thames RHA
Mr I Young	District Personnel Officer, South Birmingham Health Authority

3 Working Group E Technical Groups: Non-Medical Manpower

Mr K Ford	District Treasurer, Bromley Health Authority
Mr I Young	District Personnel Officer, South Birmingham Health Authority
Mr E Balk	South East Thames Regional Health Authority
Miss M Robson	Chief Statistician, DHSS
Mr L Ditchburn	West Surrey/NE Hampshire Health Authority
Mrs L Wainwright	Secretariat
Mr J M Dunning	Secretariat

Medical Manpower

Dr G Pledger	District Medical Officer, Northumberland Health Authority
Dr G Todd	Regional Specialist in Community Medicine, Trent RHA
Mr G Khara	Statistician, DHSS
Mr J M Dunning	Secretariat

4. Pilot and Feasibility Steering Group

During the piloting of the recommendations of Working Group E, the following were members of the Group; the job titles refer to the posts held when the work was in progress.

Mr P Chubb	District Administrator, South Birmingham Health Authority
Mr K Cottrell	Regional Statistician, North Western RHA
Mr M Court	Associate District Administrator, Exeter Health Authority
Mr A Dickinson	General Administrator, Herefordshire Health Authority
Mr J M Dunning	Secretariat
Mr H Foster	District Administrator, North Tees Health Authority
Mr K Mears	Statistician, DHSS
Mrs L Wainwright	Secretariat

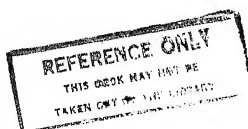
GLOSSARY OF TERMS

Budgeted hours:	the number of hours intended to be worked as standard or as overtime, for which budgetary provision has been made.
Location:	geographical location used to indicate the hospital (site), clinic, health centre, office etc in which a post is based.
Nature of registration:	Registration with the General Medical Council may be:
provisional:	restricting appointment to pre-registration house officer posts only
limited:	limiting appointment to educationally approved posts in which the duties are supervised by a fully registered medical practitioner
full	
Notional Half Days (NHDs):	The unit of time on which consultants' contracts are based. A notional half day is equivalent to a period of 3½ hours.
Position:	the management unit in which a post or employee is situated, described by financial coding. The management unit may be a cost centre or a group of cost centres (or the equivalent in non-SAS coding systems)
Units of medical time (UMTs):	The unit of time on which the contracts of junior doctors are based. A unit of medical time is equivalent to a period of 4 hours. There are 3 categories:
Basic:	UMTs within the standard working week;
Class A:	for periods standing by or working in hospital over and above the standard working week;
Class B:	for periods on-call, outside the standard working week.
Whole-time equivalents (WTE):	calculated by translating the actual manpower employed full or part-time into the equivalent number of full-time workers working the standard week for the grade. The denominator — the actual manpower employed — may be measured in terms of contract hours, worked, paid or budgeted hours.

Steering Group on
Health Services Information

Chairman: Mrs E Körner

A further report on the collection and use of information
about activity in hospitals and the community
in the National Health Service



London Her Majesty's Stationery Office



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Preface

This Report completes the work, published in our First Report, on data about hospital clinical activity and services which are delivered to patients either in hospital or the community.

The latter are characterized by change and innovation and are of great interest to managers and policy makers. However, from the point of view of management statistics, there are major problems for the collectors of data, particularly where services are not organised on a district basis. A further difficulty arises from the absence of agreed measures for the work of individual paramedical professions; the patient event on which our recommendations are based thus takes no account of the content or duration of consultations.

We believe that our recommendations lay a firm foundation in this as in other areas for further advance. The lively interest, manifested by health care professionals in the proposals contained in our interim reports, encourages the hope that the increasing use of computerised systems in place of manual systems and periodic timing and work studies will assure such progress.

Four Working Groups contributed to this Report and we owe special thanks to the members and the Chairmen, Dr Alan Jennings, Miss Jenny Jones, Dr William Turner and Mr Leonard Barron. We wish to acknowledge with gratitude the essential help and support given by the bodies representing health professionals working in the services which have been reviewed. We are also grateful to the members of the Secretariat, Miss Jane Coker, Mr Paul Davies, Mr Charles Hogan and Dr Alastair Mason who serviced the Working Groups with efficiency and zeal.

Edith Körner
Chairman
NHS/DHSS
Health Services
Information Steering Group

1 Introduction to the Report

For precept must be upon precept,
precept upon precept; line upon line,
line upon line.....

Isaiah 28:10

General approach

1.1 The recommendations in this Report follow the general philosophy and principles outlined in our First Report published in October 1982. In brief, we propose the routine collection of a series of minimum data sets to provide, at reasonable cost, the basic information which authorities and their officers need to discharge their responsibilities. The information on which they base their decisions and by means of which they evaluate the implementation of those decisions must be relevant, reliable and readily available. The reliability and timeliness of data improve if they are collected as a by-product of operational procedures, and if their relevance to the management process is understood by the collectors.

1.2 We concentrate on identifying the information needs of the district health authority and its officers on the assumption that information not required for operational and for the district's own purposes will not normally be required regionally or nationally. Thus the district minimum data sets should provide an adequate base to fulfil the information needs of the regions and DHSS.

1.3 Although the district minimum data sets recommended will be relevant to the needs of departmental managers, most departments will wish to collect for operational purposes more data than are included in them. However, the variety of departmental arrangements and sizes, and the individual styles and approaches of operational managers militate against the national prescription of standard data sets for managing individual disciplines or departments.

1.4 We have not tackled specifically the information needed by health professionals to manage individual patients and to evaluate the results of their care; nor that needed by individual professional bodies to review the resources available to and the professional work of their members. However, health professionals will find much in our recommendations that will assist them in reviewing their performance and the volume of resources devoted to their activities.

1.5 For comprehensive planning, a district health authority requires information about the total provision of services whether delivered by the health authority or the responsibility of other bodies such as local authorities, general practitioners and both voluntary and private health organisations. Our recommendations, however, are specifically applicable to the information required about all patients looked after directly by health authority employees and in services provided under contractual arrangements. Health districts should seek local agreements with other bodies providing health care to exchange compatible information.

Scope of the Report

1.6 Statistical information about the provision of clinical services is drawn from three main sources, namely:

- a. activity data;
- b. health services manpower data; and
- c. financial data.

Data about health services manpower are considered in our Third Report and those about finance in our Sixth Report.

1.7 The major areas of clinical work can be categorised as:

a. Services provided on hospital premises:

- i. hospital wards,
- ii. operating theatres,
- iii. accident and emergency departments,
- iv. radiotherapy departments, and
- v. diagnostic services.

b. Services provided on or off hospital premises:

- vi. consultant out-patient clinics,
- vii. day care facilities,
- viii. paramedical services,
- ix. maternity services, and
- x. family planning services.

c. Services provided in or for the community:

- xi. preventive services,
- xii. community nursing, and
- xiii. child health and school health services.

1.8 This Report contains recommendations arising out of four groups which have completed the review of the services listed under sections (a) and (b) above. It is concerned with the data required about the activity of:

- a. radiotherapy departments;
- b. services provided by paramedical staff; and
- c. maternity and family planning services.

In addition, the final Chapter contains additions and amendments to the recommendations made in our First Report about hospital wards, operating theatres, out-patient clinics, diagnostic services and accident departments.

1.9 In the First Report a common framework is described which can be applied to the activity information requirements of most clinical departments or services. At district level there may be a need to know about:

- a. the type of facilities or resources recorded in an inventory;
- b. the volume of resources that the DMT intend to be available for a future period;
- c. the volume of resources that was available during a specified period;
- d. the use made of a facility or a service including the volume and type of work done and the initiators of the work;
- e. the work which was planned to be done but was not done; and
- f. the demand for a facility or a service that has not been met.

This framework proved to be of particular use in the work on radiotherapy departments and paramedical services.

1.10 Chapter 2 describes the information required about radiotherapy departments and in particular the availability and use of radiotherapy machines.

1.11 Paramedical services are reviewed in Chapters 3 and 4. The former contains a description of a general approach and a model minimum data set with associated definitions and classifications applicable to the paramedical and similar disciplines. In Chapter 4 the information needs of the individual disciplines are discussed separately.

1.12 Our First Report contains recommendations about the data required about registrable births. Other aspects of maternity and family planning services are discussed in Chapter 5 of this Report, which contains recommendations about:

- a. information required about maternity services provided outside hospital and by non-medical staff, such as midwives;
- b. the data about registrable births to be available nationally; and
- c. information required about family planning services provided by a district health authority.

1.13 A number of issues were unresolved in the First Report and following its publication further issues have been raised. Chapter 6 of this Report contains recommendations about amendments and additions to the data sets about the use of hospital beds, consultant out-patient clinics, operating theatres, diagnostic departments and a number of hospital departments currently recorded on the form SH3 EDP6 I.

Types of recommendation

1.14 The majority of the recommendations in this Report concern the data items with associated classifications and definitions that should be regularly available to district managers. The district minimum data set comprises a core of comparable data without which authorities and their senior managers are handicapped in the discharge of their duties. Beyond it, operational considerations will require the collection of additional data: these will vary over time and from place to place according to locally perceived problems and local management styles. It is neither useful, nor indeed possible, to accommodate all such requirements in national systems.

1.15 In addition to the minimum data set, the collection of some items has been recommended as good practice, to be taken up by those districts who wish to have more detail available to them.

1.16 No attempt has been made to identify the precise format of information derived from the minimum data set to be used at district level. When the recommendations about the data content of activity, finance and manpower systems have been finalised, it will be possible to consider with the NHS the most productive ways of exploiting the rich data base that will be available.

1.17 No attempt has been made to identify a regional minimum data set; each region will do this for itself in consultation with the districts.

2 Information about radiotherapy departments

Introduction

2.1 Information about the work done in radiotherapy departments is currently available from form SH3 which records the new and total attendances at each department. Criticisms of the current data include:

- a. statistics do not adequately reflect the volume of work done in a department;
- b. there is a lack of information about the characteristics of patients using a department; and
- c. there is uncertainty about what activities to include as part of the work of a department.

The radiotherapy service and department

2.2 The term radiotherapy department may be used either to describe a physical location in which radiotherapists and their professional colleagues carry out much of their work, or to describe an organisational entity comprising radiotherapists and associated staff. In the latter case the work of the radiotherapy department comprises all the work under the clinical control of radiotherapists regardless of location. For the purposes of this Chapter the term radiotherapy department will be used to describe a physical location, and radiotherapy services to describe the totality of work done by radiotherapists and their colleagues.

2.3 The radiotherapy service uses or makes demands on a variety of clinical facilities. These include:

- a. the use of hospital beds;
- b. the holding of out-patient clinics;
- c. the carrying out of surgical procedures such as treatment with sealed radiation sources;
- d. the ordering and/or carrying out of diagnostic or therapeutic isotope procedures;
- e. the ordering of diagnostic investigations;
- f. the prescribing of chemotherapy; and
- g. the planning, simulation and treatment of patients by radiotherapy.

Data sets for the activities a. to e. have already been described in our First Report.

2.4 Radiotherapy departments differ in the extent to which the total work of the radiotherapy service is carried out in them. Thus some departments may have beds associated with them; out-patient clinics may be held, surgical and isotope procedures performed and chemotherapy administered. However, a specific function carried out in all radiotherapy departments is to plan courses of radiotherapy and to provide them using a variety of machines. These activities are carried out exclusively under the control of radiotherapists.

2.5 The prescribing of chemotherapy is an important part of the work of a radiotherapist. The drugs administered to patients can only be recorded usefully as part of a patient based information system. In our First Report we do not consider that this item should form part of the minimum data set to be collected on all patients using a hospital bed. However, if, as is suggested in paragraph 2.19, a computerised information system is developed for assisting the administration of and providing information for the radiotherapy service, the chemotherapeutic agents administered to each patient should be recorded as part of this system.

Information about radiotherapy machines

2.6 The information required about the use of radiotherapy machines comprises:

- a. an inventory of resources;
- b. the planning intention for the future availability of resource;
- c. a record of the amount of resource that was available;
- d. a record of the volume and type of work done; and
- e. a record of the work planned but not done.

It is not necessary to record the initiator of the work nor the unmet demand.

2.7 Information should be available which describes the resources at the disposal of each radiotherapy department. We thus **recommend** that a regular inventory be made which includes as a minimum:

- a. the type of equipment available for planning, simulation and treatment including details of the make and energy of the machine; and
- b. the date of installation of capital equipment identifying that which is purchased and replaced out of a regional capital programme.

2.8 Radiotherapy machines differ considerably with regard to cost and the ways in which they can be used. For comparison it is thus important to distinguish between the work carried out on different sorts of machines. We **recommend** that for statistical purposes the following types of machine be distinguished:

- a. superficial X-ray;
- b. deep X-ray;
- c. caesium;
- d. cobalt;
- e. linear accelerator with electron facility;
- f. linear accelerator without electron facility;
- g. after loading — high activity;
- h. after loading — low activity;
- i. simulator or comparable equipment; and
- j. planning computer.

This list should be amended regularly in the light of technical developments.

2.9 With the exception of planning computers, we **recommend** that:

- a. a statement be made by the head of department, endorsed by the district management team, about the time each type of machine is intended to be available; and
- b. the time each machine was actually available be recorded.

The unit of resource for intended and actual availability should be machine hours. A machine is only available when there are staff to run it and other resources required, such as operating theatres, can be used. A machine is available for simulation or treatment from the moment when staff start setting up until the completion of the last treatment. If two or more machines are adjacent or are run by the same staff, so that only one can be used at a time, the planned and actual availability of these machines should be combined. For example, during an eight hour day the availability of the two machines is 8 not 16 hours.

2.10 Radiotherapy machines require regular maintenance and from time to time may be inoperative unexpectedly. We **recommend** that:

- a. a statement be made by the head of department, endorsed by the district management team, about the time it is intended that each machine will be down for maintenance; and
- b. a record be made for each machine of the time spent on planned maintenance and unexpected maintenance work when this was carried out in the time which was intended to be used for treating patients.

2.11 The basic unit of work on radiotherapy machines is the exposure; the patient is positioned and exposed to ionizing radiation on a single occasion and this is usually related to the pressing of a button on the machine which is the source of radiation. Exposures comprise:

- a. treatment exposures;
- b. check films; and
- c. exposures for calibration and quality control (patient may not be present).

We **recommend** that the total number of exposures made for each type of machine be recorded. Districts, for their own purposes, may wish to identify separately treatment exposures from the other types.

2.12 Total body irradiation may involve a very long exposure and these should be separately identified for district purposes and in the return to the DHSS they should be counted as 20 exposures for each hour the procedure took. Other procedures may need to be dealt with in this way and we **recommend** that the requirement for this be kept under review.

2.13 We **recommend** that the number of fractions of treatment for each type of machine also be recorded. A fraction is a set of exposures delivered to one patient in the course of one visit to a radiotherapy room. This definition does not preclude the possibility of there being only one exposure nor does it place any limit on how many exposures there are. As the definition is in terms of visits to a radiotherapy room, a patient could have two fractions in a day although remaining in the radiotherapy department between them.

2.14 A course of radiotherapy treatment is a set of fractions which have been planned and prescribed as a whole. A course of treatment may be:

- a. The primary course; the first in which treatment has been given for a particular disease.

- b. A subsequent course; prescribed for lesions that stem from or are secondary to a disease that has already been treated by a radiotherapy machine. Although most patients having subsequent courses will be treated in the same district which was responsible for administering previous courses, a few will have a subsequent course having had a first treatment in another district. Thus subsequent courses can be sub-divided into:
 - i. previous course administered in the district, or
 - ii. previous course administered in another district.

2.15 We **recommend** that in order to obtain a count of the number of:

- a. Diseases treated by radiotherapy in a district, the number of initial first treatment exposures be recorded. An initial first exposure is the first occasion on which treatment is given for a particular disease in a district. The number of initial first treatment exposures administered in a district will comprise the first exposures for all primary courses and the first exposures of all subsequent courses when the previous course was administered in another district.
- b. Courses of radiotherapy administered in a district, a record be made not only of the initial first treatment exposures but also those first exposures which are the first treatment of a subsequent course when the previous course was administered in the district.

2.16 If a patient has two unrelated diseases both of which require radiotherapy, the first exposure of each course of treatment should be recorded as an initial first treatment exposure. If, during a course of treatment, a patient starts a further course, the second course of treatment should be identified separately.

2.17 For the expensive machines (currently d-h in paragraph 2.8) it is of use to know the volume of intended work which was not carried out. We thus **recommend** that the number of fractions arranged to be done but which are cancelled be recorded for these machines.

2.18 Simulators and planning computers do not administer treatment and thus the workload measures recommended for the treatment machines are inappropriate. It is important to know, however, to what extent these often expensive pieces of capital equipment are being used. We **recommend** that the total number of occasions on which these machines are used to simulate or plan a course of treatment be recorded.

Information about patients

2.19 The administration of a radiotherapy service and the planning of radiotherapy are activities which would benefit considerably from a computing capability. We thus **recommend** that the feasibility of using information technology be explored to:

- a. provide a patient data base for the radiotherapy service which will allow clinicians to evaluate patient care;
- b. assist the scheduling of patients for visits to out-patient clinics and radiotherapy treatment; and
- c. plan individual treatment.

2.20 We **recommend** that for each patient receiving care from the radiotherapy service a computerised data base contain information about:

- a. the use of hospital beds;
- b. attendance at outpatient clinics;
- c. performance of surgical procedures, including treatment with sealed radiation sources;
- d. isotope procedures;
- e. diagnostic investigations;
- f. prescribing of chemotherapy; and
- g. treatment by machines.

**Statistics for district
management and region**

2.21 Each district team should be aware of the work carried out on the radiotherapy machines for which it is responsible and, as there is an important regional element to the management of this specialty, detailed information is also required at the regional level. We **recommend** that the minimum set of data items collected about radiotherapy machines be:

- a. An inventory of the machines in the department (see paragraph 2.7).
- b. A statement of the intended availability of treatment and simulation machines made by the head of department and endorsed by the district management team (see paragraphs 2.9-2.10) expressed as:
 - i. Machine hours for which it is intended that each type of machine (or pair of machines if only one can be used at a time) will be available for treatment.
 - ii. Machine hours for which it is intended that each type of machine will require maintenance.
- c. Data about the availability of treatment and simulation machines (see paragraphs 2.9-2.10) expressed as:
 - i. Machine hours for which each type of machine (or pair of machines if only one could be used at a time) was available.
 - ii. Machine hours for each type of machine during which planned maintenance was carried out and unexpected maintenance work was carried out when this was during time which was intended to be available for treatment.
- d. Data about the work done on each type of treatment machine (see paragraphs 2.11-2.13) expressed as:
 - i. number of exposures performed, less those for total body irradiation;
 - ii. number of hours of treatment time devoted to total body irradiation; and
 - iii. number of fractions performed.
- e. Data about the number of first treatment exposures administered in the district identifying those which were initial first treatment exposures (see paragraphs 2.14-2.16). These data are not specific to a particular type of machine.
- f. Data about the work intended to be done but which was not carried out on certain treatment machines expressed as the number of fractions intended to be done but cancelled (see paragraph 2.17).
- g. Data about the use of simulators and planning computers (see paragraph 2.18).

2.22 Additional information that district or region might find of use to collect by regular or ad hoc survey includes:

- a. details about the mould room work done;
- b. delay time between ordering and starting treatment by machines;
- c. patients' mode of transport to the department; and
- d. patients' arrival times in relation to appointment times.

Information for DHSS

2.23 The DHSS will require information for planning and review purposes. Therefore we **recommend** that each region regularly forward a copy of the inventory described in paragraph 2.7 and a return based on the data set recommended in paragraph 2.21, a specimen of which is shown in Table I. Total body irradiation should be recorded as 20 exposures for each hour the procedure took. If there are two radiotherapy departments in a district, such a district may wish to submit a separate return for each department.

Table I *District summary of radiotherapy machine activity returned annually*

a. *Activity by machine*

MACHINE TYPE	MACHINE ACTIVITY	
	TOTAL EXPOSURES	TOTAL FRACTIONS
Superficial X-ray Deep X-ray Caesium Cobalt Linear + electron Linear - electron After loading — high After loading — low		
—	OCCASIONS USED	
Simulator Planning Computer		

b. *Total activity in the district*

No of diseases treated (number of initial first treatment exposures) =

No of courses administered (total number of first treatment exposures) =

3 A model minimum data set for paramedical and similar services

Introduction

3.1 A variety of clinical services is provided by health professionals other than doctors and nurses. We are conscious that the description "paramedical" is not readily accepted by all the disciplines concerned, although in the absence of agreed alternatives it has the advantage of being in common usage within the NHS. For convenience, we retain it in this Report as a generic term.

3.2 Our review of information about paramedical and similar services has been concerned with the following disciplines:

- a. chiropody;
- b. clinical psychology;
- c. dietetics;
- d. occupational therapy;
- e. physiotherapy and remedial gymnastics; and
- f. speech therapy.

Further work still needs to be done on the information requirements for audiological and optical services, including orthoptics, and for psychotherapy services.

- 3.3 The main criticisms of the current national statistics, as collected on form SH3, about paramedical and similar services are:
 - a. they do not reflect the volume of work;
 - b. most of the work done outside hospital is not recorded;
 - c. definitions are out of date and open to different interpretations;
 - d. there are no nationally available data about the originators of paramedical work; and
 - e. there are no acceptable workload measures nor agreed methods of assessing staffing requirements.

Our proposals will overcome some but not all of these deficiencies. Because most of the data about these services will continue to be collected by the health professionals themselves, our recommendations are, of necessity, a compromise between what it is desirable for district managers to know, what it is feasible to capture and what the health service can afford to devote to the processing of data. We have not succeeded in identifying data which adequately reflect the work done by staff in these disciplines.

3.4 There is no uniform pattern to the organisation and delivery of the different paramedical services but they do share certain characteristics which enable a model minimum data set to be identified. That model is the subject of this Chapter. Discussions with the professional bodies have led to a number of modifications and additions which are specific to individual services; these are discussed in Chapter 4.

3.5 The collection of data about paramedical services must take account of the way clinical activity is organised:

- a. many activities do not involve face-to-face contact with patients;
- b. care may be given to one patient by more than one member of a discipline at the same time;
- c. one member of a discipline may treat more than one patient at a time;
- d. more than one discipline may be in contact with one or more patients at the same time;
- e. activity may take place on or off hospital premises;
- f. care started in one location may be continued elsewhere; and
- g. many patients have regular contact with a discipline for a long period of time for the same condition.

Inventory of resources

3.6 The major resource available to a paramedical service is its manpower. Recommendations about health services manpower information are made in our Third Report. Paramedical departments may also have substantial capital facilities, such as gymnasias, hydrotherapy or swimming pools, workshops and expensive specialist equipment. We **recommend** that an up-to-date inventory of such facilities be maintained in each district. The inventory might also usefully include a description of complementary services provided by local authorities and voluntary or commercial bodies.

Information about activity

3.7 We have identified four main categories of paramedical activity:

- a. face-to-face contact with patients but excluding home assessment visits;
- b. telephone contacts with patient or relatives;
- c. home assessment visits, at which the patient may or may not be present; and
- d. other activities which include ward rounds, case conferences, liaison with other services, teaching sessions, attendances at training courses and administrative activities.

Face-to-face contacts and home assessment visits are discrete identifiable events and data about them can be collected in a routine statistical system. The model minimum data set is discussed in paragraphs 3.11 to 3.21.

3.8 Telephone contacts with patients or their relatives are often used to give help or advice which would otherwise have required a visit or attendance. Telephone contacts should be distinguished from calls which are primarily administrative. Despite their importance we do not consider it feasible to record telephone contacts in a routine statistical system.

3.9 The emergence of a more consultative style has increasingly involved professional staff in a range of other activities which cannot be described easily in terms of contacts even though they may relate to an individual patient. Time may be spent on ward rounds or case conferences; on liaising

with other services, such as community nursing or local authority social services; on the training of staff of the same or other disciplines; or contributing to health education initiatives.

3.10 We **recommend** that, at least once a year, a sample enquiry be carried out in each district, based on self-reporting, to ascertain the proportion of time devoted to the following types of activity:

- a. Face-to-face contacts; analysed as described in paragraphs 3.11 to 3.13.
- b. Telephone contacts with patients or relatives.
- c. Home assessment visits.
- d. Other professional activities:
 - i. ward rounds;
 - ii. case conferences;
 - iii. teaching sessions, distinguishing between the teaching of students of the discipline, other health professionals and the general public;
 - iv. attendances at training courses;
 - v. liaison with other services;
 - vi. administrative activities; and
 - vii. other activities.

Data obtained from the enquiry should be regarded as an integral part of the information requirements for district management.

Information about face-to-face contacts

3.11 Face-to-face contacts may be sub-divided into:

- a. attendances lasting from the arrival to the departure of the patient; and
- b. visits lasting from the arrival to the departure of the member of the paramedical discipline.

We **recommend** that a count of the total number of face-to-face contacts made during a specified period be part of the model minimum data set, as an indicator of the volume of service provided. For the purposes of inter-district comparison, the number of face-to-face contacts can be related to the proportion of time and manpower devoted to this type of work as shown by the enquiry into total activity.

3.12 One or more members of the same or different disciplines may be in contact with one or more patients at the same time. We **recommend** that for statistical purposes contacts be recorded as follows:

- a. if one or more members of the same discipline are in contact with one patient at the same time, this should be recorded as one face-to-face contact;
- b. if members of more than one discipline are in contact with one patient at the same time, this should be recorded as one face-to-face contact for each discipline;
- c. if one or more members of the same discipline are in contact with a group of patients at the same time, each patient should be recorded as one face-to-face contact; and
- d. if members of more than one discipline are in contact with a group of patients at the same time, each patient should be recorded as one face-to-face contact for each discipline.

3.13 Face-to-face contacts differ greatly in the time they take and the work done in them. A count of contacts should not be used as a measure of the work done by paramedical disciplines. It has been suggested that a more workload sensitive measure is obtained when the staff member becomes the key part of the contact and the number of staff in contact is counted rather than patients. We consider that this method of recording would lead to great difficulties in comparing data between districts and do not recommend it. However, to provide a more complete picture of the ways in which care is being delivered, we **recommend** that the sample enquiry proposed in paragraph 3.10 be used to identify the frequency with which more than one member of a discipline are in contact with an individual or group of patients, and the extent to which face-to-face contacts occur as part of group activity.

3.14 A useful indicator of the activity of a service is the number of episodes of care started during a specified period. An episode of care comprises all the contacts made in the district with a patient by a particular service regardless of changes of location. The first occasion on which a patient is seen by a member of the service is the initial contact. An episode is terminated either by the patient being formally discharged or not being in face-to-face contact with the service for at least six months. We **recommend** that a count of the number of initial face-to-face contacts made during a specified period be part of the model minimum data set.

3.15 District managers need to know how many people receive a particular service within a specific period. If a patient register is kept, a count can be obtained directly. If not, the first face-to-face contact each patient makes with that service in the district in the financial year must be identified and recorded. In our First Report we recommend that all clinical activity returns be based on the financial rather than calendar year. We **recommend** that a count of the number of first face-to-face contacts made during the financial year be part of the model minimum data set.

3.16 It is crucial to the collection of nationally comparable data about initial contacts and first contacts in the financial year that these refer to the district and not to individual locations or units. Although it is recognised that some paramedical services are not organised on a district basis, for statistical purposes a change of location or staff does not institute a new episode of care. For local operational purposes it may be useful to identify the first contact with each unit during an episode of care, but these data must not be used outside the district.

3.17 Face-to-face contacts may be classified in a number of ways. We **recommend** that for the model minimum data set they be identified by:

- a. the location at which the contact took place;
- b. the source of referral; and
- c. the age and sex of the patient.

These attributes may be recorded for all face-to-face contacts, or only for initial contacts or first contacts in the financial year.

3.18 Paramedical and similar staff may work in a variety of locations on NHS premises, either in or outside hospital, or in facilities run by local authorities, as well as in the patient's home. We **recommend** that the type of location be recorded for all face-to-face contacts as follows:

- a. Hospital site:

- i. the paramedical department;
- ii. the ward;
- iii. day care facility;
- iv. elsewhere on a hospital site.
- b. NHS premises other than a hospital site:
 - v. day care facility;
 - vi. health centre or other premises occupied by general practitioners;
 - vii. other premises.
- c. Local authority premises:
 - viii. schools;
 - ix. premises run by the social services department.
- d. Other locations:
 - x. patient's home;
 - xi. residential accommodation provided by voluntary or private agencies.

A more detailed analysis can be used locally for specific services.

3.19 The source of referral can provide valuable information about the pattern of demands on a service and the type of patient being treated. We **recommend** that, for each initial contact, the source of referral be recorded and classified as follows:

- a. the hospital clinical specialty, if the referral is by a hospital consultant or junior staff;
- b. general medical practitioner;
- c. other medical referral, for example a clinical medical officer;
- d. self-referral or referral by a parent or relation of the patient; or
- e. other, for example community nurse or education service.

A more detailed analysis can be used locally for specific services. We recognise that there may be internal referrals within a discipline, one member referring to another. These are not included in the model minimum data set. They may, of course, be identified for local purposes provided the original source of referral has been recorded at the commencement of the episode.

3.20 District managers should be aware of the way paramedical services are serving different groups of the population. We **recommend** that the age and sex of the patient be recorded for all initial contacts and first contacts in the financial year as part of the model minimum data set. Age should be recorded in the following age bands:

- a. 0-4 years;
- b. 5-16 years;
- c. 17-54 years;
- d. 55-64 years;
- e. 65-74 years;
- f. 75-84 years; and
- g. 85 years and over.

Home assessment visits	3.21 Paramedical staff will sometimes visit a patient's home to review the need for equipment or structural alterations. The patient may or may not be present during the visit. We recommend that the number of home assessment visits, ie those undertaken to assess the home itself as distinct from the patient in a home environment, be recorded as part of the model minimum data set.
The model minimum data set	3.22 We recommend that the model minimum data set for paramedical and similar services comprise: a. An inventory of resources (see paragraph 3.6) b. A sample enquiry, at least annually, to ascertain the proportion of time devoted to different activities (see paragraph 3.10) c. Data about face-to-face contacts: i. Number of contacts sub-divided by location (see paragraphs 3.11-12 and 3.18). ii. Number of initial contacts sub-divided by source of referral (see paragraphs 3.14 and 3.19). iii. Number of initial contacts sub-divided by the age and sex of the patients (see paragraphs 3.14 and 3.20). iv. Number of first contacts in the financial year sub-divided by the age and sex of the patients (see paragraphs 3.15 and 3.20). d. Data about home assessment visits (see paragraph 3.21). District managers should seek comparable information about services provided by local authorities and voluntary and commercial bodies.
Computerised information systems	3.23 In our First Report we observe that, as a general rule, the processing of data about individual patients requires the use of computing facilities. The information technology which is now available is relatively cheap and can be operated within the district; applications for the paramedical services are already being explored. We recommend that information technology be used to develop operational systems to assist the delivery of paramedical services and to produce management data. 3.24 A patient-based computerised information system will not only enable the model minimum data set to be fully exploited, but will also provide scope for a much richer data base. Items which cannot be recommended as part of the model minimum data set may be collected by individual districts with the appropriate technology. For example, some paramedical departments already collect information about diagnosis or disability, but processing the data is complex and time-consuming without the aid of a computer.

4 Information about specific paramedical and similar services

Introduction

4.1 In the previous Chapter we identify a model minimum data set which is generally applicable to paramedical and similar services and is to be drawn from two main sources:

- a. the sample enquiry into the overall pattern of work; and
- b. routine recording of face-to-face contacts and home assessment visits.

However, there are differences in the way the various services are organised and delivered which affect the information requirements. Following discussions with the professions, in this Chapter proposals are made about some additions and modifications to the data relating to face-to-face contacts for specific services.

4.2 In this Chapter we discuss the specific information requirements for the following services:

- a. chiropody;
- b. clinical psychology;
- c. dietetics;
- d. occupational therapy;
- e. physiotherapy and remedial gymnastics; and
- f. speech therapy.

Chiropody

4.3 Chiropody services may be provided in hospital or in the community. For community-based chiropody services the policy is to concentrate on certain priority groups, whereas hospital-based services may treat any patient referred by a hospital consultant. In order to distinguish between community and hospital contacts, we **recommend** that, for chiropody services, all face-to-face contacts be recorded by the source of referral as well as the location of contact and that community based contacts comprise all those which do not occur on hospital premises as a consequence of a referral from a hospital doctor.

4.4 The focus on treating priority groups requires a means of classifying community based contacts by attributes of the patient. There are, as noted in paragraphs 5.48 and 5.49 of our First Report, major problems in defining care groups. However, much useful information can be obtained from recording the patients' age and sex. We **recommend** that the age and sex of the patient be recorded for all community based contacts.

4.5 The recommended extensions to the model minimum data set will have resource implications. However, we are advised that as modern clinical practice in chiropody includes the programming of treatment and discharge, with specific aims and limits for each course, the use of an individual patient record is crucial. A district-wide chiropody patient register will facilitate

capture of the required data. We understand that, pending the introduction of computerised systems, the profession is designing a model edge-hole card.

4.6 We **recommend** that the data to be collected about face-to-face contacts for chiropody services comprise:

- a. number of contacts sub-divided by location;
- b. number of contacts sub-divided by source of referral;
- c. number of community-based contacts sub-divided by the age and sex of the patients;
- d. number of initial contacts sub-divided by source of referral;
- e. number of initial contacts sub-divided by age and sex of the patients; and
- f. number of first contacts in the financial year sub-divided by the age and sex of the patients.

Clinical psychology

4.7 Wide variations in the availability and organisation of clinical psychology services present particular obstacles to the collection of comparable data. As the role of the clinical psychologist develops, so it is becoming increasingly consultative: the clinical psychologist often gives advice to other professionals, such as health visitors or mental handicap nurses, who are in direct contact with patients. Some clinical psychology posts have explicit organisational or planning responsibilities. A national survey of the pattern and organisation of NHS clinical psychology services is shortly to be mounted and this should provide valuable information about current developments.

4.8 Against this general background, the profession recognises the requirement for data relating to face-to-face contacts as indicators of the level and kind of direct services provided. However, as with other services the local survey of professional activity as described in paragraph 3.10 is seen as the main source of management information. We **recommend** that the minimum data set for clinical psychology services be as for the model described in paragraph 3.22.

Dietetics

4.9 Much of the activity of dietitians is concerned with disease prevention, which aims to change public attitudes both directly and by assisting the work of other health professionals. Whilst there will be face-to-face contacts with an individual or group of patients in the course of providing specific advice, the breadth of a dietitian's work can be properly reflected only through the survey of total activity recommended in paragraph 3.10. On the basis that data from this survey will be used in conjunction with those relating to face-to-face contacts, we **recommend** that the minimum data set for dietetic services be as for the model described in paragraph 3.22.

Occupational therapy

4.10 The profession is concerned that the number of face-to-face contacts will not adequately represent the volume of work undertaken in particular areas unless some time value is included. This is already recorded in many occupational therapy departments. The use of patient registers is now standard practice and where these exist there will be no difficulty in recording and collating units of time. We therefore **recommend** that the duration of each face-to-face contact be recorded in half-hour units.

4.11 We **recommend** that the data to be collected about face-to-face contacts for occupational therapy services comprise:

- a. number of contacts sub-divided by location;

- b. number of hours of contact sub-divided by location;
- c. number of initial contacts sub-divided by source of referral;
- d. number of initial contacts sub-divided by age and sex of the patients; and
- e. number of first contacts in the financial year sub-divided by the age and sex of the patients.

Physiotherapy

4.12 Physiotherapy staff are much the most numerous group among paramedical and similar services, and for that reason we are conscious that data collection will have more extensive resource implications than for other groups. It was clear from our consultations that the profession were concerned about the demands on professional time implicit in a system of collecting data about every contact. For physiotherapy services, therefore, we **recommend** a modified version of the model data set, which excludes the routine recording of all face-to-face contacts, but includes data about initial contacts and first contacts in the financial year.

4.13 Both initial contact and first contact in the financial year are district based concepts (see paragraph 3.16). Where there is no district-wide register or a record which travels with the patient on transfer between different units, physiotherapists may have difficulty in identifying what is the first contact in the district. We understand, however, that continuity in physiotherapy records is accepted as an important part of good professional practice and that the use of registers is increasing. Moreover, now that the vast majority of districts have district physiotherapists responsible for managing the service throughout the district, it should be much easier to operate integrated records as the basis for a district information system. The profession appears confident that such a system can be made to work, provided the staff themselves, as the data collectors, receive adequate training and guidance. Particular attention will need to be given to the definition of discharge (see paragraph 3.14), which marks the end of an episode of care.

4.14 We **recommend** that the data to be collected about face-to-face contacts for physiotherapy services comprise:

- a. number of initial contacts sub-divided by location;
- b. number of initial contacts sub-divided by source of referral;
- c. number of initial contacts sub-divided by the age and sex of the patients;
- d. number of first contacts in the financial year sub-divided by location; and
- e. number of first contacts in the financial year sub-divided by the age and sex of the patients.

Remedial gymnastics

4.15 The Society of Remedial Gymnasts and Recreational Therapists accepts that the information to be collected about remedial gymnastics should be the same as for physiotherapy. The Society is negotiating currently with the Chartered Society of Physiotherapy about a possible merger of the two professions. If this occurs there will no longer be any need to collect data separately about the two services. Until such time, we **recommend** that data on remedial gymnastics be recorded separately, and that the minimum data set be that for physiotherapy as described in paragraph 4.14.

Speech therapy

4.16 In general, speech therapists currently collect more data than other groups. The programming of treatment for the individual patient, with defined objectives for the course, means that data about the reason for discharge, which already are collected commonly, are of particular interest to

the profession. We **recommend** that at the end of a treatment episode, the length of the episode from initial contact to last contact be recorded. For local purposes it may be also useful to record the reason for discharge.

4.17 The classification in the model minimum data set of age needs to be extended to identify services for pre-school and school age children. We **recommend** that the child age groups described in paragraph 3.20 be sub-divided as follows:

- a. 0-2 years;
- b. 3-4 years;
- c. 5-9 years; and
- d. 10-16 years.

4.18 The classification in the model minimum data set of source of referral needs to be extended to encompass the referral patterns for speech therapy services. We **recommend** that the source of referral classification described in paragraph 3.19 be extended to include:

- a. education service:
 - i. teaching staff,
 - ii. psychologists;
- b. local authority social services;
- c. health visitors; or
- d. community nursing service.

4.19 We **recommend** that the data to be collected about face-to-face contacts for speech therapy services comprise:

- a. number of contacts sub-divided by location;
- b. number of initial contacts sub-divided by source of referral;
- c. number of initial contacts sub-divided by the age and sex of the patients;
- d. number of first contacts in the financial year sub-divided by the age and sex of the patients; and
- e. number of completed episodes of treatment sub-divided by length of episode.

Information for DHSS and regions

4.20 The regions and DHSS will require information about paramedical and similar services for planning and review purposes. Therefore, we **recommend** that each district send a return at least annually to region for each discipline based on the data sets recommended in this Chapter.

5 Further information about maternity services and family planning

MATERNITY SERVICES Introduction

5.1 The provision of maternity care in a district comprises:

- a. ante-natal care provided by general practitioners, consultant obstetricians and their staff, midwives and health visitors;
- b. care in a hospital bed before the birth, either by a consultant obstetrician and his staff or by a general practitioner;
- c. care in a hospital bed for the birth, either by a consultant obstetrician and his staff or by a general practitioner;
- d. care at home for the birth by a midwife or general practitioner;
- e. the organisation of a "flying squad" for obstetric emergencies occurring outside hospital; and
- f. post-natal care by general practitioners, consultant obstetricians and their staff, midwives and health visitors.

5.2 In our First Report definitive recommendations are made about the information required about:

- a. patients using a hospital bed (see Chapter 5); and
- b. clinics held by consultant obstetricians both on and off a hospital site (see Chapter 10).

In addition, provisional recommendations are made about the information required about registrable births (Chapter 6 of our First Report). This data set is currently being piloted in six health districts.

5.3 This Chapter contains:

- a. An interim report of progress in piloting the data items to be collected about a registrable birth.
- b. Recommendations about the data to be collected about ante-natal and post-natal work done by midwives and general practitioners, and the work of domiciliary "flying squads".
- c. Provisional recommendations about the data required to be nationally available about registrable births. These will be finalised when piloting has been completed.

Data about registrable births

5.4 Although the piloting of the data required about registrable births is not yet complete, the need to make certain changes and additions has already been identified. A Final Report with definitive recommendations will be made in due course but at this stage it is useful to note that:

- a. The method of admission of all admissions to maternity wards should be recorded as maternity admission; it is not worthwhile trying to divide these into elective and emergency admissions. This is an amendment to the recommendation in paragraph 5.13 of our First Report.

- b. Definitions of neonatal care have been agreed and are recommended in this Report in paragraphs 6.11 to 6.12.
- c. There is an increasing interest in collecting data about both obstetric anaesthesia and analgesia and new items may be added to the data set to remedy current deficiencies.
- d. Data about rubella antibody status is being collected in many of the pilot districts with a view to considering the inclusion of this item in the minimum data set.
- e. Professional bodies have requested that the data item "senior person responsible and present at delivery" be considered for inclusion in the minimum data set.

5.5 Since the publication of our First Report there has been increased interest in the data to be made available nationally. Some of the items which were recommended as optional and are in the clinical data sets may in the light of changing national requirements need to become part of the minimum data set. Consideration will be given to these matters in the preparation of our definitive recommendations.

Ante and post-natal care and flying squads

5.6 General practitioners may sometimes hold ante-natal clinics on hospital premises in their own right. In these cases we **recommend** the data set for consultant out-patient clinics be used and the clinics classified as general practice: ante-natal.

5.7 Much ante-natal care is provided by midwives and health visitors. Patients may be visited in their homes. Midwives may hold regular clinics either in association with consultant obstetricians or on their own and these may occur on or off a hospital site. In order to determine the volume of work done, we **recommend** that the following data be obtained from the activity returns of midwives and health visitors:

- a. The number of attendances at ante-natal clinics run by midwives. If a midwife or health visitor is working in a clinic run by a consultant or general practitioner, all attendances at such a clinic should be attributed to the clinic. Districts may wish, for their own purposes, to identify separately the work done by midwives or health visitors in ante-natal clinics run by consultants or general practitioners.
- b. The number of ante-natal domiciliary visits by midwives and health visitors.

5.8 The provision of support services for home confinements and for emergencies occurring outside hospital involves the organisation of "flying squads" or alternative arrangements consisting of personnel drawn from a number of disciplines depending on the nature of the emergency. An emergency service is expensive to organise and requires a rota of people able to leave immediately. We **recommend** that data about the number of calls made by the flying squad be recorded, classified by the reason for the call as follows:

- a. Care of the mother:
 - i. before the onset of labour,
 - ii. in labour, or
 - iii. post-partum.
- b. Care of the baby.

5.9 Formal arrangements for post-natal care have developed considerably in recent years and in addition to the visit to a consultant post-natal clinic, patients may receive advice about breast feeding, family planning and other matters from a variety of health professionals. Some of this activity may fall within programmes of professional advice and support, and thus be recorded in the community health services information system, with which our Fifth Report is concerned. The data to be collected about the use of consultant post-natal clinics are recommended in the First Report. A few post-natal clinics are run by general practitioners on hospital premises and we **recommend** that activity in these clinics be recorded in a similar format. These clinics should be classified as general practice: post-natal.

5.10 The data to be returned to the DHSS about the use of consultant ante-natal and post-natal clinics are described in the First Report. We **recommend** that data about ante-natal care provided by midwives and health visitors be returned to the DHSS based on the data set recommended in paragraph 5.7.

Nationally available data about registrable births

5.11 Final recommendations cannot be made about the data required to be available nationally until piloting of the data items has been completed. Although it is not possible to prescribe all the data items required, the data sets to be forwarded to the OPCS can be identified. We **recommend** that for each registrable birth the following be submitted centrally:

- a. Minimum data set for the mother as specified in our First Report.
- b. Minimum data set for the baby as specified in our First Report and supplemented by the recommendations in paragraphs 6.11 and 6.12 of this Report.
- c. Minimum data set for the notification of each birth. The content of this will be finalised following piloting.
- d. Data about parental occupation obtained from birth registration.

5.12 We **recommend** that the data items collected on the birth notification should be linked, either at district or regional level, to both the minimum data set for the mother and the minimum data set for the baby, and that only linked data be submitted to OPCS. These recommendations will enable OPCS to have a flexible data file which should have the capability of meeting the information needs of district and regional managers, the DHSS, professional bodies and researchers.

5.13 Output from the national data file can be produced on computer tape, microfiche and printed tables. We **recommend** that regular tables be produced in a form agreed by the standing committee which is described in paragraphs 8.26 and 8.27 of our First Report. Information users, including the DHSS, should be afforded access to computer tapes on which to carry out their own analyses. The composition and availability of such tapes would have to accord with the conditions laid down by the standing committee.

FAMILY PLANNING SERVICES Introduction

5.14 Family planning services are provided by a variety of agencies and in different locations. The work may be carried out in:

- a. consultant out-patient clinics, either specifically held to provide family planning or as part of the gynaecological service;
- b. health authority clinics staffed by clinical medical officers and general practitioners, which may take place on or off hospital premises;

- c. general practitioner surgeries, and some general practitioners may hold family planning clinics on hospital premises;
- d. the client's home, through a domiciliary family planning service; and
- e. clinics run by commercial or voluntary organisations.

Information about services

5.15 Ideally the information about these services would comprise:

- a. an estimate of the target population for the service; and
- b. data about the activity of all the agencies providing services.

However, there are major difficulties in estimating the target population with any accuracy and obtaining data about activity from agencies other than health authorities.

5.16 The calculation of the target population poses a number of problems including determining:

- a. to what extent the services are aimed at the male population as well as women aged between 15 and 44; and
- b. what proportion of the population do not require services because, for example, they intend to have a child, one partner has been sterilised or is infertile, or for religious reasons.

We **recommend** that further research be carried out to identify practical ways of estimating the target population for family planning services.

5.17 Data about activity are available for those services which are financed directly by the district health authority. However, family planning work done in consultant out-patient clinics may be difficult to distinguish from other aspects of gynaecological practice and organisational arrangements for consultants carrying out family planning work differ widely between districts. Thus we **recommend** that data be collected about the family planning activity carried out in health authority clinics staffed by clinical medical officers and general practitioners and by a domiciliary family planning service. It is recognised that this will give an incomplete picture of the family planning services being provided for a defined population. Health authorities should, where possible, obtain comparable data from other agencies providing these services.

5.18 Family planning contacts may be sub-divided into clinic attendances and domiciliary visits. In order to know how many clients are receiving the service within a specified period, the first time each client is seen in the period must be recorded. In our First Report we recommend that all clinical activity returns be based on the financial year rather than the calendar year. Thus we **recommend** that the first time each client is in contact with family planning services (as described in paragraph 5.17) in the district during a financial year be identified.

5.19 Information is required about the method of contraception being used. We **recommend** that following the first contact in the financial year the method of contraception be recorded as follows:

- a. oral contraceptive;
- b. intra-uterine device;
- c. cap or diaphragm;
- d. sheath;

- e. chemicals;
- f. rhythm method;
- g. female sterilisation;
- h. vasectomy;
- i. other methods; or
- j. no method provided.

5.20 Information is required about the age of women attending clinics or being seen at home and about the sex of those obtaining sheaths. We **recommend** that at the first contact in the financial year the sex of those obtaining sheaths be identified and the age of the women attending recorded as follows:

- a. under 16;
- b. 16-19;
- c. 20-24;
- d. 25-29;
- e. 30-34;
- f. 35-39; or
- g. 40 and over.

Statistics for district and DHSS

5.21 Each district should be aware of the work carried out in health authority family planning clinics run by clinical medical officers and general practitioners and by a domiciliary service, if one is provided. We **recommend** that the minimum set of data items collected should be:

- a. total number of contacts in a period sub-divided into clinic attendances and domiciliary visits; and
- b. number of first contacts in the financial year analysed by:
 - i. method of contraception;
 - ii. sex of those attending for sheaths; and
 - iii. age of women attending.

Attempts should be made to obtain comparable information from other agencies providing family planning services in the district.

5.22 The regions and DHSS will require information about family planning services for planning and review purposes. We **recommend** that each district send a return annually to region based on the data set recommended in paragraph 5.21. Regions will then produce an annual summary of the district information for submission to the DHSS. A specimen district summary is shown in Table II.

Table II District summary of family planning services activity

a. *Total contacts in the financial year*

Number of contacts at clinics =

Number of contacts by the domiciliary service =

Total contacts =

b. *First contacts in the financial year*

Method of Contraception	AGE OF CLIENT						
	under 16	16-19	20-24	25-29	30-34	35+	ALL
Oral contraceptive							
IUD							
Cap or diaphragm							
Sheath - female attender							
Sheath - male attender							
Chemicals							
Rhythm method							
Female sterilization							
Vasectomy							
Other methods							
No method provided							
ALL							

6 Miscellaneous issues

Introduction

6.1 In our First Report about hospital clinical activity it is noted that further work is required to clarify information requirements in a number of areas. Following its publication a number of new issues have been identified. This Chapter resolves most of the outstanding problems and contains recommendations about:

- a. the recording of shared care between consultants for patients using hospital beds;
- b. the recording of home leave for patients using hospital beds and interval admissions;
- c. the classification of types of neonatal care and facilities for caring for neonates;
- d. the recording of the availability of private and amenity beds and those under contractual arrangements;
- e. the collection of data about healthy persons lodged in hospital;
- f. the collection of data about consultant out-patient clinics held under contractual arrangements;
- g. the collection of data about operating theatre sessions held under contractual arrangements;
- h. a classification of accident and emergency services;
- i. changes in the minimum data set for diagnostic departments;
- j. the future of the return SBH 179, Chronically Sick and Disabled Persons Act, 1970; and
- k. the future of the return SH3 EDP6I, Other ancillary departments.

Shared care

6.2 In paragraph 5.21 of the First Report the issue of shared care is noted. There are two particular problems that have to be solved:

- a. the definition of what is meant by shared care; and
- b. methods of recording and coding it.

6.3 For some patient episodes, care may be shared jointly by two or more consultants. In practice this may be very difficult to distinguish from the arrangement when a second consultant is acting in an advisory capacity. Local circumstances and customs and inter-specialty relationships will affect the situation and it is recognised that the identification of whether shared care occurs is totally dependent on the relevant clinicians informing the nursing staff. As a rule of thumb, we **recommend** that shared care be defined as the continuing care of a patient shared equally between two or more consultants during an episode.

6.4 We **recommend** that the recording of shared care be catered for by the development of combination codes for common specialty or consultant associations. These should allow up to four specialties to be responsible for shared care. The same codes should be used when detailed information about out-patient attenders is collected on a patient administration system.

Home leave and interval admission

6.5 In our First Report it is recommended in paragraph 5.24 that further work should be carried out to identify, define and record patients who go home for a short period with a view to returning to a hospital in the same district for future treatment. The problems with this group are:

- a. defining "short period", and
- b. clarifying how to record the occupancy status of the beds that have been vacated during the "short period".

6.6 We **recommend** that:

- a. Home leave occurs when a patient using a hospital bed spends a period of time outside hospital, usually at home, with the intention that the patient will return to the same ward to continue the same consultant episode.
- b. The period of time be defined as a maximum of Saturday, Sunday, NHS, bank and public holidays plus an additional three days.
- c. While the patient is on home leave this should be recorded on the patient information system as a "ward" transfer to "home".
- d. The bed vacated by the patient while on home leave should be recorded on the ward listing, if unoccupied, as reserved and not available because of home leave. However, if pressure on beds should lead to its being occupied it should be recorded accordingly.
- e. If the patient does not return on the day specified and has failed to make alternative arrangements with the hospital staff, such a patient should be considered to be discharged from that day.

6.7 Interval admissions were defined in paragraph 5.47 of the First Report as patients, admitted for a planned sequence of admissions each involving at least one overnight stay, who have fulfilled this intention. There may be a problem in distinguishing this pattern of care from a patient having regular periods of home leave. In addition the management intention that a patient will be an interval admission will not be fulfilled until a subsequent admission has occurred. We therefore **recommend** that the category interval admission only be used as a type of management intention. For the purposes of the patient classification, any patient with the management intention interval admission should be considered as an ordinary admission.

Neonate classification

6.8 In the First Report it is noted that classifications are required for:

- a. the type of ward in which a neonate may receive care (paragraph 9.16c); and
- b. the type of care received by a neonate (paragraph 5.36).

6.9 Because of the need to maintain close contact between a mother and her baby many neonates, who formerly would have been nursed in special units, are now cared for in ordinary maternity wards. Baby units currently called "special care" (SCBU) and "intensive care" (ICU) overlap considerably in activity and there may be a difference in the perceptions of district and regional personnel about the function of a particular unit.

6.10 For national comparative purposes simple clear definitions are required and we **recommend** that wards exclusively for the neonate be classified as follows:

- a. maternity: a ward associated with the maternity ward, ie the cots are in the maternity ward nursery or in the maternity ward itself;
- b. non-maternity: a ward for neonates not associated with the maternity ward and without regionally designated cots for intensive care; or
- c. regionally designated: a ward not associated with the maternity ward in which there are regionally designated cots for intensive care.

The time a neonate spends in each type of ward, the ward stay, will be recorded as part of the patient information system.

6.11 We **recommend** that the type of care received by a neonate be classified as:

- a. Intensive: care which involved continuous skilled supervision by nursing and medical staff for at least one hour or until death. Resuscitation carried out immediately after birth and completed within an hour or so does not constitute intensive care.
- b. Special: care which provided observation and treatment falling short of intensive care but exceeding normal routine care.
- c. Normal: care given, usually by the mother in a maternity neonatal ward, supervised by a midwife and doctor but requiring minimal medical or nursing advice.

Table III contains a list, derived from that prepared by the British Paediatric Association, of procedures and conditions classified as to whether they constitute intensive or special care. The list is not comprehensive.

6.12 In our First Report we recommended that the highest level of care received by a neonate during a stay in hospital be recorded as a V code of the ICD on the patient information system. As a minimum we **recommend** that intensive care be identified but districts and regions may also wish to distinguish between special and normal care. This simple recording method does not permit a calculation of the length of time spent receiving different types of care nor the sequence of care delivery. Such refinements are to be encouraged but cannot at this stage be recommended as part of the minimum data set.

6.13 It is desirable for district managers to be aware of the amount of intensive and special neonatal care provided in the district. As a mixture of types of care might be delivered in any one ward, the review of the total activity of different types of ward will not provide this information. This can be obtained, however, from a daily count of the number of neonates who had received intensive, special and normal care and these data could be recorded on the daily ward listings for each neonatal ward. We have not yet piloted the feasibility of data collection but if this is successful, we **recommend** that for each neonatal ward data be collected on a daily basis about the type of care provided for each neonate. It must be remembered that some neonates will only be in hospital because they are accompanying their mother and do not themselves require hospital treatment (see paragraphs 6.17 to 6.22).

Table III *A classification of neonatal intensive and special care*

Procedures or conditions considered as intensive care

1. Babies receiving:
 - a. assisted ventilation (either IPPV, IMV or CPAP) and in the first 24 hours after its withdrawal, or
 - b. total parenteral nutrition.
2. Babies who:
 - c. have had major surgery, particularly in the first 24 post-operative hours, or
 - d. are undergoing major medical procedures, such as arterial catheterisation, peritoneal dialysis or an exchange transfusion.
3. Babies:
 - e. of less than 30 weeks gestation during the first 48 hours after birth,
 - f. who are having convulsions,
 - g. have cardiorespiratory disease which is unstable, including recurrent apnoea requiring constant attention, or
 - h. transported by the staff of the unit concerned, usually between hospitals, for special investigations or treatment.

Procedures or conditions considered as special care

1. Babies receiving:
 - a. additional oxygen,
 - b. intravenous glucose and electrolyte solutions,
 - c. tube feeding,
 - d. phototherapy,
 - e. antibiotics,
 - f. barrier nursing,
 - g. special monitoring (such as frequent glucose or bilirubin estimations), or
 - h. constant supervision (such as babies whose mothers are drug addicts.)
2. Babies who:
 - i. require constant monitoring of respiration or heart rate, or by transcutaneous transducers,
 - j. have had minor surgery in the previous 24 hours,
 - k. have a tracheotomy,
 - l. have conditions requiring radiological examination or other methods of imaging, or
 - m. are dying.

This classification, prepared by the British Paediatric Association, is not comprehensive and should be used only as a guide.

6.14 The collection of data about the type of care provided and type of ward used for each neonate will permit a clearer picture to be obtained of how much intensive care is being carried out and where. Patterns of neonatal care are complex and change rapidly, and information needs for this care group will have to be reviewed regularly.

**Private and amenity beds,
contractual arrangements**

6.15 In paragraph 9.43 of our First Report it is recommended that an annual retrospective summary of bed availability by ward type and site be submitted by regions to DHSS. This summary is intended to cover all beds used in the district and thus includes but does not separately identify private and amenity beds and those available under contractual arrangements.

6.16 The Secretary of State is statutorily responsible for determining the charges to be levied on amenity and private patients and thus needs to know the number of such beds authorised in each district. This is also information which should be available to a district health authority. We **recommend** that the district summary of bed availability be augmented to include:

- a. the number of beds authorised under Section 65 of the NHS Act, 1977 as the group authorisation or total for the district;
- b. the number of amenity beds authorised in the district; and
- c. identification of any institution outside the NHS where patients are receiving treatment under contractual arrangements. Such institutions

should be considered as hospital sites and a record should be made of the number of beds days that were available classified by types of ward.

Healthy persons lodged in hospital

6.17 An item "healthy persons lodged at hospitals with in-patients" was included on the SH3 return until 1978. No definition was given and thus data are difficult to validate or compare but the last national total showed over 50,000 such persons lodging during that year. Since the collection of this item ceased to be a national requirement there has been increasing interest in the provision of facilities for healthy persons particularly for parents accompanying children, and many districts have continued to collect it.

6.18 A district health authority should be aware of the provision and use of any facilities it makes available for healthy people to accompany patients. The DHSS has issued guidance on these matters with respect to children and comparable data are thus required for national purposes. We **recommend** that data about the availability and use of hospital facilities for healthy persons staying overnight with patients be part of the district minimum data set. Information is required about the number and types of healthy persons and the type of facility being used to lodge them.

6.19 The healthy persons lodged can be divided into four groups:

- a. mothers staying because a neonate is a patient;
- b. neonates or children staying because a parent or sibling is a patient;
- c. adult relatives staying because a child is a patient; or
- d. relatives or friends staying because an adult is a patient.

6.20 The hospital accommodation used by healthy persons may be of two types:

- a. the bed used is one normally used by patients and part of the district hospital bed stock; or
- b. there are special facilities or arrangements for lodging the healthy.

6.21 We **recommend** that the following items of data be made available on a regular basis and form part of the district minimum data set:

- a. Number of healthy persons, classified by the groups outlined in paragraph 6.19 and by the types of facility outlined in paragraph 6.20.
- b. Number of overnight stays, classified by the groups outlined in paragraph 6.19 and by the types of facility outlined in paragraph 6.20.

These data should be made available to region and DHSS; and a specimen of the district summary which should be returned to the latter is shown in Table IV.

6.22 If a healthy person is occupying a bed which is part of the patient bed stock, this bed is not available for the use of patients. Thus we **recommend** that it should be recorded on the daily ward listing as not available. Details about healthy persons should not be included in the patient information system.

Consultant out-patient clinic data

6.23 It is recommended in paragraph 10.20 of our First Report that data be collected about the number of out-patient clinic sessions held under contractual arrangements. The diversity and complexity of arrangements for the holding of these types of clinics make it inappropriate to require a

standard national return. We therefore **recommend** that the number of out-patient clinic sessions held under contractual arrangements no longer form part of the minimum data set but the total attendances at clinics held under contractual arrangements remain.

Operating theatre data

6.24 The district summary of operating theatre activity recommended in paragraph 12.11 of our First Report is intended to cover all operations carried out in operating theatres on NHS premises or for which contractual arrangements have been made. However, investigation of the contractual arrangements made for operating theatres has shown that it is rare for specific sessions to be contracted for, and we **recommend** that the district summary only cover operating theatres on NHS premises.

Table IV District summary of the overnight stays by healthy persons

Type of Person Lodged	Facility Used			
	Patient Bed Stock		Other	
	No of Persons	Overnight stays	No of Persons	Overnight stays
Mother with neonate				
Neonate or child				
Adult with child				
Adult with adult				

Classification of accident & emergency services

6.25 We **recommend** that accident and emergency services, as defined in paragraph 14.3 of our First Report, be classified as follows:

- a. with medical staff on site and intended to be open 168 hours a week;
- b. with medical staff on site and intended to be open for less than 168 hours a week;
- c. covered by other than medical staff on site and intended to be open 168 hours a week; or
- d. covered by other than medical staff on site and intended to be open for less than 168 hours a week.

This classification should be used in completing the section on supporting facilities in the district summary of bed availability to be returned to the DHSS. Such a summary is recommended in paragraph 9.43 of our First Report.

Diagnostic department data

6.26 The following issues have arisen following publication of our First Report:

- a. separate identification of those nuclear medicine procedures done in radiology, nuclear medicine and medical physics departments;
- b. information about requests to pathology departments received in respect of human sources other than patients;
- c. information about the number of post-mortems performed; and
- d. more information about the pathology facilities present in a district and the recognition that a few general pathology departments still exist.

6.27 Only a minority of nuclear medicine procedures are carried out in nuclear medicine departments. The great bulk of this work is done either in radiology or medical physics departments, and local arrangements may be

made for these procedures to be done in other departments as well. To give a more complete picture about the carrying out of nuclear medicine procedures, we **recommend** that at district level those procedures done in nuclear medicine, radiology, medical physics and other departments be separately identified. In the district summary for DHSS there is no need to include the work done in other departments. The revised summary is shown in Table V.

6.28 In addition to requests received from patients, pathology departments may receive requests in respect of other human sources, such as investigations to be carried out on blood from potential donors and specimens arising from the maintenance of public health within a hospital or the health surveillance of hospital workers. To obtain a more comprehensive picture of the work done by pathology departments, we **recommend** that data be collected about the number of requests for specimens from human sources other than patients.

6.29 The current return SBH 6 contains data about the number of post-mortems performed. These data are required by DHSS for a variety of purposes, in particular for dealing with the Home Office about Coroners' post-mortems and for planning the collection of pituitary glands and other tissues. We therefore **recommend** that the number of post-mortems carried out in each department continue to be collected and divided as at present into those with histology performed and those without.

6.30 For district purposes it may be useful to obtain more information about the performance of post-mortems. Mortuary and post-mortem facilities are expensive and cannot be used for other purposes. Post-mortem examination is an intrinsic part of clinical practice as well as an important component of post-graduate medical training. Health authorities will sometimes, by agreement with a local authority, provide services for post-mortems done at the direction of the Coroner. It is useful to distinguish between post-mortems in two ways, namely those carried out:

- a. on patients who die in hospital or people brought in dead to hospital; and
- b. for the Coroner or at the request of clinicians.

These data are available in all districts but are not commonly collated.

6.31 In our First Report it is recommended that the number of pathology departments in the district be recorded. A department is a unit which is managed as a separate entity by a consultant or non-medical scientist of equivalent standing. The district summary of information recommended in our First Report does not identify general pathology as a specialty. However, in some districts there are general pathology departments with single specialty sections, and some single specialty departments may have laboratories on two or more sites. We thus **recommend** that information be collected on the number of specialty locations, that is the number of single specialty laboratories and the number, if any, of single specialty sections of multi-specialty departments. Although general pathology is recognised as a department and should be recorded as such, the work done in such departments should be attributed to the various specific pathology specialties.

Table V District summary of radiology and nuclear medicine procedures carried out in radiology, nuclear medicine and medical physics departments

Requests received in respect of:	RADIOLOGY DEPARTMENTS	NUCLEAR MEDICINE DEPARTMENTS	MEDICAL PHYSICS DEPARTMENTS
	Category of Procedure	Category of Procedure	Category of Procedure
	A B II C III D IV E F VI	II III IV VI	II III IV VI
a. NHS patients b. Private patients c. Independent sector d. Category II patients e. Other sources			
Total requests			
Total number of departments within district	RADIOLOGY	NUCLEAR MEDICINE:	MEDICAL PHYSICS:

The categories of procedure are as specified in the Steering Group's First Report
For district purposes, a further section for work done in other departments might be added.

6.32 In preceding paragraphs, a number of changes to the district summary of information about pathology departments required by the DHSS is recommended. A revised version of the summary is shown in Table VI.

**SBH 179: Chronically Sick
and Disabled Persons Act**

6.33 The return SBH 179 was instituted to meet statutory requirements laid down by the Act of 1970. Section 17(1) placed a duty on the Secretary of State "to secure that so far as practicable a person who is suffering from a condition of chronic illness or disability . . . is not cared for in the hospital as an in-patient in any part of the hospital which is normally used wholly or mainly for the care of elderly persons unless he is himself an elderly person". The intention was to include chronic mental disorder as a chronic illness or disability.

6.34 Section 17(2) required the Secretary of State to lay before each House of Parliament a statement about these wrongly placed patients in a form that he considers appropriate. In Section 17(3) an elderly person is defined as one who is aged 65 or more or is suffering from the effects of "premature ageing". The provisions of the Act apply to patients receiving long term hospital care or short term care for social reasons. The admission of a chronically sick or disabled person for acute treatment is not included for these purposes.

6.35 The major problem in data collection for the return is identifying "people suffering from the effects of premature ageing" and capturing these data. Although recognising the desirability of obtaining information about these patients, it is not feasible to collect data about them without the involvement of clinicians and even then the definition is too imprecise for the information to be comparable.

6.36 It is possible to collect all the other data required for the return SBH 179 from the computerised patient information system which is recommended in our First Report. From this source, data will be available about:

- a. patients aged under 65 in wards exclusively reserved for the elderly, and
- b. the use of wards for the younger physically disabled.

6.37 To increase the value of data about the use of wards by the younger physically disabled, it is desirable and feasible to classify them further as spinal units and other wards for the younger physically disabled. There are currently eight nationally recognised spinal units in England.

6.38 Thus we **recommend** that:

- a. the data required be obtained from the patient information system recommended in our First Report;
- b. wards for the younger physically disabled be classified by the intensity of care given into spinal units and others;
- c. the term spinal unit be reserved for nationally recognised spinal units; and
- d. the return SBH 179 be abolished.

Table VI *District summary of activity in pathology departments returned annually*

Requests received in respect of:	Chemical Pathology	Haematology	Histopathology Cytology and Neuropathology	Immunopathology	Medical micro- biology	General Pathology
a. NHS patients						
i. by NHS laboratories						
ii. by PHLS laboratories						
b. Private patients						
c. Independent sector						
d. Category II work						
e. Other human sources						
TOTAL REQUESTS						
Total number of departments						
i. NHS						
ii. PHLS						
Total number of NHS specialty locations						
Total number of Post Mortems						
			a. With histology			
			b. Without histology			

6.39 We **recommend** that data no longer be returned to the DHSS about:

- a. electrolysis;
- b. hydrotherapy;
- c. impedance;
- d. industrial therapy;
- e. mothercraft;
- f. plaster rooms;
- g. skin treatment;
- h. stomatherapy; and
- i. surgical appliances.

6.40 Return SH3 EDP6 I requires districts to return statistics to DHSS about 36 ancillary departments. The need for these data has been reviewed by a number of our working groups and Table VII summarises the current status of this review and identifies which Report contains recommendations about the minimum data set for each department. We **recommend** that return SH3 EDP6I be abolished when the new data sets are available nationally.

Table VII *Other ancillary departments recorded on return SH3 EDP6 I*

1. Cessation of national returns recommended either in this or our First Report:

Blood gas analysis	Medical photography
Electromyography	Mothercraft
Electrolysis	Plaster rooms
Hydrotherapy	Skin treatment
Impedance	Stomatherapy
Industrial therapy	Surgical appliances
Medical illustration	

2. Minimum data set recommended in our First Report:

Electro-convulsive therapy	Nuclear medicine
Electroencephalography	Respiratory function
Electrocardiography	

3. Minimum data set recommended in this Report:

Chiroprody	Medical physics
Dietetics	Occupational therapy
Family planning	Psychology
	Speech therapy

4. Work not yet completed

Artificial eyes	Orthoptics
Audiometry	Optical dispensing
Contact lenses	Psychotherapy
Dental hygiene	Sight testing
Hearing aids	
Lip reading	
Low visual aids	

Summary of recommendations

Chapter 2: Information about radiotherapy departments

1. An inventory of the resources available to each department should be made and the minimum data set is described (paragraph 2.7).
2. A classification of radiotherapy machines is described (paragraph 2.8).
3. The information required about the intended and actual availability of machines for treating patients is described (paragraph 2.9).
4. The information required about the time intended for maintaining machines and that spent maintaining them is described (paragraph 2.10).
5. Measures of treatment machine use are described and the following data items are defined:
 - a. exposure (paragraphs 2.11 and 2.12); and
 - b. fraction (paragraph 2.13).
6. Methods of counting the number of diseases treated and the number of courses administered are described (paragraph 2.15).
7. Information required about the work planned but not done is described (paragraph 2.17).
8. Measures of use for simulators and planning computers are described (paragraph 2.18).
9. Computerised radiotherapy information systems should be developed and introduced widely (paragraphs 2.19 and 2.20).
10. The minimum data set for a radiotherapy department is described (paragraph 2.21).
11. The statistics required for DHSS are described (paragraph 2.23).

Chapter 3: A model minimum data set for paramedical and similar services

12. An inventory of the resources available to each department should be made (paragraph 3.6)
13. A regular sample enquiry should be carried out to ascertain the proportion of time devoted to the different activities carried out by paramedical departments (paragraph 3.10)

14. The information required about face-to-face contacts is described and the following data items are defined or classified:

- a. face-to-face contact (paragraphs 3.11-3.13);
- b. initial contact (paragraph 3.14);
- c. first contact in the financial year (paragraph 3.15);
- d. location of contact (paragraphs 3.17 and 3.18);
- e. source of referral (paragraphs 3.17 and 3.19); and
- f. age and sex of the patient (paragraphs 3.17 and 3.20).

15. The information required about home assessment visits is described (paragraph 3.21).

16. The model minimum data set for paramedical and similar services is described (paragraph 3.22).

17. Computerised information systems for paramedical services should be developed and introduced widely (paragraph 3.23).

Chapter 4 Information about specific paramedical and similar services

18. Additional data items required for chiropody are described, namely:

- a. recording source of referral for all contacts in order to distinguish community based contacts from the others (paragraph 4.3);
- b. recording the age and sex of the patient for all community based contacts (paragraph 4.4).

19. The data to be collected about face-to-face contacts for chiropody are described (paragraph 4.6).

20. The data to be collected about face-to-face contacts for clinical psychology should be as for the model minimum data set (paragraph 4.8).

21. The data to be collected about face-to-face contacts for dietetics should be as for the model minimum data set (paragraph 4.9).

22. An additional data item required for occupational therapy is described, namely:

- a. recording of the duration of each contact (paragraph 4.10).

23. The data to be collected about face-to-face contacts for occupational therapy are described (paragraph 4.11).

24. An item in the model minimum data set not to be collected for physiotherapy is described, namely:

- a. recording of all face-to-face contacts (paragraph 4.12).

25. The data to be collected about face-to-face contacts for physiotherapy are described (paragraph 4.14).

**Chapter 5: Further
information about
maternity services and
family planning**

26. The data to be collected about face-to-face contacts for remedial gymnastics are described (paragraph 4.15).
27. Additional items and modifications to the model minimum data set items are described for speech therapy, namely:
- a. recording of the length of an episode of care (paragraph 4.16);
 - b. extended age classification (paragraph 4.17); and
 - c. extended classification of source of referral (paragraph 4.18).
28. The data to be collected about face-to-face contacts for speech therapy are described (paragraph 4.19).
29. The statistics about paramedical and similar services required for DHSS are described (paragraph 4.20).
30. Data required about ante and post-natal clinics run by general practitioners are described (paragraphs 5.6 and 5.9).
31. The data to be collected about ante-natal care carried out by midwives and health visitors are described as are the statistics required by the DHSS (paragraphs 5.7 and 5.10).
32. The data required about the activity of "flying squads" are described (paragraph 5.8).
33. The format for returning data to OPCS about each registrable birth is described (paragraphs 5.11-5.12).
34. Arrangements for establishing the format and content of national data output about registrable births are described (paragraph 5.13).
35. Further work is required to identify practical ways of estimating the target population for family planning services (paragraph 5.16).
36. Information should be collected about family planning work done in health authority clinics staffed by clinical medical officers and general practitioners and by a domiciliary family planning service (paragraph 5.17) and definitions and classifications are described for:
- a. first attendance in the financial year (paragraph 5.18);
 - b. method of contraception (paragraph 5.19); and
 - c. age of clients (paragraph 5.20).
37. The minimum data set to be collected about family planning activity is described (paragraph 5.21).
38. The statistics DHSS require about family planning activity are described (paragraph 5.22).

39. The shared care of patients using a hospital bed is defined and a method of recording is described (paragraphs 6.3 and 6.4).
40. Home leave is defined and the method of recording bed use when a patient is on home leave is described (paragraph 6.6).
41. The term interval admission should only be used as a type of management intention not as a way of classifying patients (paragraph 6.7).
42. A classification of neonatal wards is described (paragraph 6.10).
43. A classification of the type of care given to neonates is described (paragraph 6.11).
44. The type of care given to a neonate must be recorded on the patient information system by using a V code of the ICD (paragraph 6.12).
45. For each neonatal ward, data should be collected about the type of care provided in it (paragraph 6.13).
46. Additions to the district summary of bed availability are described comprising information about the authorisation of beds for private and amenity patients and beds managed under contractual arrangements (paragraph 6.16).
47. Information about healthy persons lodged in hospital should be collected (paragraph 6.18),
and a minimum data set is described (paragraph 6.21)
as is the way of recording bed use (paragraph 6.22).
48. The number of out-patient clinic sessions held under contractual arrangements need not form part of the minimum data set (paragraph 6.23).
49. The district summary of operating theatre activity need only cover those on NHS premises (paragraph 6.24).
50. A classification of types of accident and emergency service is described (paragraph 6.25).
51. Nuclear medicine procedures done in medical physics and other departments should be separately identified (paragraph 6.27).
52. Data should be collected about the number of pathology requests for specimens from human sources other than patients (paragraph 6.28)
53. Data should be collected about the number of post-mortems performed (paragraph 6.29).
54. Amendments to the classification of pathology departments are described (paragraph 6.31).

55. The return SBH 179 should be abolished and the information required obtained from the patient information system (paragraph 6.38).

56. Wards for the younger physically disabled should be classified as spinal units and others (paragraph 6.38).

57. The return SH3 EDP6 I should be abolished and the information required obtained from the new data sets recommended in this and our other Reports (paragraph 6.40).

Composition of Steering Group and working groups

1 The Steering Group

The following are or have been members of the Steering Group; former members are shown with an asterisk:

Mrs E Körner, Chairman.

Mrs G Banks, Under Secretary, DHSS.

Dr H Carson, District Medical Officer, Richmond, Twickenham & Roehampton DHA.

* Mr D de Peyer, Under Secretary, DHSS.

* Mr J Elkington, Consultant Surgeon, Arrowe Park Hospital, Wirral.

* Dr J Evans, Deputy Chief Medical Officer, DHSS.

* Mr M Fairey, Regional Administrator, North East Thames RHA.

Mr G Greenwood, District Treasurer, Wirral DHA.

Dr M Goldacre, Specialist in Community Medicine, Oxford RHA.

* Dr G Guest, Regional Management Services Officer, Wessex RHA.

Mr K Heron, District Administrator, Huntingdon DHA.

Professor W Holland, Professor of Clinical Epidemiology & Social Medicine, St Thomas' Hospital, London.

Dr A Jennings, Consultant Anaesthetist, Northampton General Hospital.

Miss J Jones, Regional Nursing Officer, West Midlands RHA.

* Mr R Jones, District Administrator, Frenchay DHA.

* Mr R Lawrence, Area Treasurer, Wirral AHA.

* Mr R Myall, Regional Treasurer, North West Thames RHA.

Mr D Pace, Regional Treasurer, South West Thames RHA.

* Mrs A Poole, Deputy Chief Nursing Officer, DHSS.

* Dr R Rowe, Area Medical Officer, Dorset AHA.

* Dr C Scurr, Consultant Anaesthetist, Westminster Hospital, London.

Mr A Smith, Director of Statistics & Research, DHSS.

Dr E Shore, Deputy Chief Medical Officer, DHSS.

* Mr R Thatcher, Registrar-General, OPCS.

* Dr J Todd, Area Medical Officer, Dudley AHA.

* Dr W Turner, Regional Medical Officer, Yorkshire RHA.

Dr D Wild, Regional Medical Officer, South West Thames RHA.

Miss P Wright-Warren, Deputy Chief Nursing Officer, DHSS.

The Secretariat to the Steering Group has been provided by the following DHSS officers: former members are shown with an asterisk:

- * Mrs G Booth.
- * Mr N Cockett.
- * Miss J Coker.
- Mr P Davies.
- * Mr M Dunning.
- * Mrs M Fry.
- * Mr C Hogan.
- Dr A Mason.
- Mr R Willmer.

2 Working group C (paramedical services)

The following were associated with the work of this group; the job titles refer to the posts held when the work was in progress:

- Dr J Ashley, Senior Medical Officer, OPCS.
- Dr P Begley, District Community Physician, Frenchay DHA.
- Mr P Davies, Steering Group Secretariat.
- Miss L Dyer, Physiotherapist, DHSS.
- Mrs E Grove, Occupational Therapist, DHSS.
- Dr I Haslock, Consultant Rheumatologist, Middlesbrough General Hospital.
- Mr C Hogan, Steering Group Secretariat.
- Miss S Holden, Principal, DHSS.
- Mr A Holroyd, District Administrator, York DHA.
- Mr D Idris-Evans, Area Chiropodist, Buckinghamshire AHA.
- Mr A Kilburn, Regional Information Scientist, South Western RHA.
- Mr E Lawrence, Area Treasurer, Wirral AHA.
- Miss A Mason, District Information Officer, Frenchay DHA.
- Mr K Mears, Statistician, DHSS.
- Mr G Nix, Research Assistant, Southmead DHA.
- Mr A Saville, Principal, DHSS.
- Miss P Torrens, Dietitian, DHSS.
- Dr W Turner, Regional Medical Officer, Yorkshire RHA.
- Mrs E Varga, Area Speech Therapist, Cleveland AHA.
- Mrs J Williams, District Physiotherapist, Doncaster DHA.
- Mrs V Wood, District Occupational Therapist, Manchester South DHA.

3 Working group D (community health services).

The following were associated with the work of this group; the job titles refer to the posts held when the work was in progress:

- Miss A Addy, Area Nurse Child/School Health, Derby AHA.
- Dr K Dalzell, Senior Clinical Medical Officer, Clywd DHA.
- Mr P Davies, Steering Group Secretariat.
- Miss S Earl, Nursing Officer, DHSS.
- Mr R Hillman, District Treasurer, Southmead DHA.

Mr C Hogan, Steering Group Secretariat.
 Professor W Holland, Professor of Clinical Epidemiology and Social Medicine, St. Thomas' Hospital, London.
 Miss D Horridge, Divisional Nursing Officer, East Surrey DHA.
 Miss J Jones, Regional Nursing Officer, West Midlands RHA.
 Mr R McNay, Regional Statistician, Northern RHA.
 Dr R Rowe, Area Medical Officer, Dorset AHA.
 Mr J Rowntree, Chief Statistician, DHSS.
 Ms E Scrivens, Lecturer in Social Administration, St. Thomas' Hospital, London.
 Mr W Stovell, Area Information Officer, Kent AHA.
 Dr P Tiplady, Specialist in Community Medicine, East Cumbria DHA.
 Dr C Waite, General Medical Practitioner, Bishop Auckland.
 Miss X Webster, District Nursing Officer, Gateshead DHA.
 Mr P Whitfield, District Administrator, Blackburn, Hyndebourn and Ribble Valley DHA.
 Dr P Whitfield, Specialist in Community Medicine, Hampshire AHA.

4 Working group M (radiotherapy and miscellaneous issues)

The following were associated with the work of this group; the job titles refer to posts held when the work was in progress:

- Miss P Annesley, Statistician, DHSS.
- Dr J Ashley, Senior Medical Officer, OPCS.
- Mr K Cottrell, Director of Performance Review, Mersey RHA.
- Mr P Davies, Steering Group Secretariat.
- Dr A Jennings, Consultant Anaesthetist, Northampton General Hospital.
- * Professor C Joslin, Consultant Radiotherapist, Cookridge Hospital, Leeds.
- Mr E Ko, Statistician, DHSS.
- Dr A Mason, Steering Group Secretariat.
- * Dr G Matthews, Specialist in Community Medicine, South East Thames RHA.
- * Dr M McEvedy, Consultant Radiotherapist, Pembury Hospital.
- Mrs L Wainwright, Steering Group Secretariat.
- * Mr R Skeet, South East Thames Cancer Registry.
- * For radiotherapy discussions only.

5 National maternity statistics group

The following were associated with the work of this group; the job titles refer to the posts held when the work was in progress:

- Miss P Annesley, Statistician, DHSS.
- Dr J Ashley, Senior Medical Officer, OPCS.
- Mr L Barron, Consultant Obstetrician, Newcastle-upon-Tyne.
- Mr W Barron, Regional Computer Services Officer, Northern RHA.
- Mr M Brown, Principal, DHSS.

Dr H Carson, District Medical Officer, Richmond, Twickenham & Roehampton DHA.

Dr I Chalmers, Director, National Perinatal Epidemiology Unit, Oxford.

Miss J Coker, Steering Group Secretariat.

Professor J Dennis, Department of Human Reproduction & Obstetrics, Southampton.

Mrs C Flint, Midwifery Sister, St George's Hospital, Tooting.

Miss E Gee, Director of Midwifery Services, Luton & Dunstable DHA.

Dr M Goldacre, Specialist in Community Medicine, Oxford RHA.

Dr C Harris, Director, Department of General Practice, St Mary's Hospital Medical School.

Miss F Martin, Steering Group Secretariat.

Dr A Mason, Steering Group Secretariat.

Mr K Mears, Statistician, DHSS.

Dr J Metters, Senior Medical Officer, DHSS.

Dr R Turner, Specialist in Community Medicine, Yorkshire RHA.

Dr C Walker, Consultant Paediatrician, Dept of Child Health, Dundee.

Mr K Wright, Senior Principal, DHSS.

Current hospital statistical returns which will be replaced

1. The following returns which are currently submitted to the DHSS are covered by the recommendations in this and our First and Third Reports and will cease to be operational when the new systems are introduced:

- a. SH3, hospital statistics (a few items in SH3 EDP6 I still need to be reviewed);
- b. SH9, contractual arrangements;
- c. SBH 13, legal status on admission;
- d. SBH 112, psychiatric facilities and manpower returns;
- e. SBH 179, Chronically Sick and Disabled Persons Act;
- f. SBH 203, in-patient waiting list;
- g. SBH 208, psychosurgery;
- h. SBH 211, private facilities and patients in NHS hospitals;
- i. SBL 618, chiropody service;
- j. SBL 708, family planning: clinic services;
- k. SBL 709, family planning: domiciliary service;
- l. LHS 27/1, birth notifications and low birth weight reports; and
- m. LHS 27/2, Part A, maternity and child health service returns.

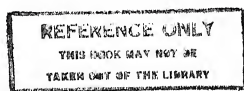
2. The future of the following clinical activity returns still has to be determined:

- a. SBH 19, the hospital eye service; and
- b. The outstanding items in SH3 EDP6 I shown in Table VII of this Report.

Steering Group on
Health Services Information

Chairman: Mrs E Körner

A report on the collection and use of information about
services for and in the community in the National Health Service



London Her Majesty's Stationery Office



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Preface

Where order in variety we see,
And where, though all things differ, all agree.

Alexander Pope, Windsor Forest.

Community services provided by health authorities represent an important resource to the nation both in maintaining and improving the community's health status and by complementing and, where appropriate, substituting for, hospital care. This makes it imperative that the planning, delivery, and evaluation of community health services be firmly integrated with the provision of hospital, general practitioner and other primary care services.

This Report seeks to furnish managers and policy-makers with information which will facilitate and encourage that integration. Unlike much of the existing information, our proposals focus on those who receive care and treatment rather than on those who deliver them. This will make it easier to examine options and priorities both within community health services and in relation to other services.

In structuring the proposed information, we follow the distinction already drawn by Florence Nightingale between 'nursing the healthy' and 'nursing the sick': between, on the one hand, preventive and advisory services (delivered largely, though not exclusively, by health visitors and community medical staff), and, on the other, the care of patients outside hospital (delivered largely, though not exclusively, by community nurses). Within this distinction, we propose that information be available by 'programme', in order to concentrate management attention on the different purposes which community health services seek to fulfil.

We are conscious that this approach breaks new ground; also that, as yet, very few districts have technological tools at their disposal to aid the collection and analysis of data about community services. We are therefore proposing very simple systems. However, the favourable reception of the Interim Report from Working Group D and responses to consultation encourage the hope that district managers and professional staff, general practitioners and others concerned with primary care can and will refine and improve upon our recommendations. This will be all the more likely when the use of computers becomes widespread. Indeed, studies conducted both in our own pilot districts and by management consultants elsewhere indicate that the introduction of computers is essential if the processing and use of the data we propose are to become an integral part of the management of community health services.

We would like to thank Dr R G Rowe and Miss Jenny Jones who chaired Working Group D on whose proposals this Report is based, and Dr P Tiplady, the Vice-Chairman; their expertise was a major influence. We also extend our thanks to members of the Working Group (listed in Annex I) and to the many other people who assisted and advised the Group or contributed in discussion and in writing during consultation. We are particularly grateful for the support and advice we received from many staff in the pilot districts.

Charles Hogan of the Steering Group's Secretariat supported the Working Group by preparing and drafting the Interim Report and by setting in train consultation; his drive and perseverance made an essential contribution. His successor, Paul Davies, ably completed the consultation and the final draft.

Edith Körner
Chairman
Steering Group

1 Introduction

1.1 This Report is the Fifth in a series embodying our recommendations to the Secretary of State on information about health care activity, manpower and finance which is required for managing the NHS. Details of other reports in the series are in Annex II.

1.2 The present Report deals with information about activity in the community health services. We define these services broadly as those which are directly financed by health authorities and provided to people outside hospital. The Report does not deal with information about maternity, family planning or paramedical activity, which is covered in our Fourth Report. Information about community dentistry will form the subject of a separate Report.

GENERAL PRINCIPLES AND APPROACH

1.3 All our recommendations are based on a common approach and common principles which are outlined in our First Report. We have concentrated on information required by a district health authority and its officers on the assumption that, with only rare exceptions, subsets and aggregations of the data required for the district's own purposes will satisfy the needs of higher tiers.

1.4 We propose the routine collection by all district health authorities of a series of minimum data sets with definitions and classifications which allow comparisons to be made within districts, between districts and nationally. The minimum data sets should be capable of collection as a by-product of operational procedures, in order to produce reliable data at a reasonable cost.

1.5 The minimum data set is defined as the data without which a health authority and its management team would be handicapped in the discharge of their duty to plan, monitor and account for the services for which they are responsible. What we recommend is no more than the minimum: a compromise between what is desirable, feasible, and affordable to collect in all districts. Most districts will wish to collect additional data to accord with local management styles and to deal with local problems.

1.6 The minimum data sets are relevant to, but not necessarily sufficient for, operational management. The variety of departmental arrangements and sizes and the different approaches of individual operational managers militate against standardisation at this level.

1.7 Information about health status and about the incidence of disease is an essential element in management decisions about the allocation of resources and the evaluation of services. We have, jointly with the Faculty of Community Medicine, set up a working party to make proposals which would assist managers to take proper account of these factors. They are not specifically considered in this Report, although some of the data we

recommend will contribute to information about the health status of the community: for example, levels of immunisation.

1.8 We did not set out to tackle information required for the clinical care of the individual patient or its evaluation; nor that needed by individual professional bodies to review the resources available to their members or their professional work. We trust, however, that the framework we have provided will be found to be useful for professional, as well as management, purposes.

TYPES OF RECOMMENDATION

1.9 The recommendations in this Report are of two kinds, namely about:

- a. the content of data, and
- b. the analysis of data.

The majority of our recommendations deal with the data items which should be routinely collected in all districts and with their associated definitions and classifications. In this context, we also commend certain optional extensions of the minimum data set and good administrative practices which some districts may wish to adopt.

1.10 Some recommendations go beyond the content of data items and identify the format of an information system in which activity data can be linked with policies and objectives and with population and financial data. We see a continued need for further work with the NHS to develop new and fruitful analyses of the recommended data.

1.11 Our recommendations about the collection and analysis of data on community health services do not, in the main, rely on the use of computers, although in some instances we make specific recommendations for computer systems.

SCOPE AND STRUCTURE OF REPORT

1.12 Health services for people outside hospital are delivered, on the one hand, by independent family practitioners and, on the other, by nursing, medical, dental and other district health authority staff. In conformity with our remit, we deal only with information about the activity of DHA staff.

1.13 General medical practice is central to the provision of many of the services which we have considered in this Report. We are very conscious of the fact that, without data about certain aspects of the work of general medical practitioners, district health authorities will have available only very incomplete information about the extent to which services are reaching the population for whom they are planned and will find it difficult to assess whether their own provision is excessive or insufficient. This cannot but inhibit authorities' ability to plan, evaluate and account for the services they provide. We believe that this important issue deserves further study.

1.14 Prior to 1974, community health services were the responsibility of local authorities. The integration of community and other NHS services, and the need for comprehensive planning of health care provision, have underlined the inadequacies of existing information.

1.15 The proposals in this Report seek to present a view of community health services which would facilitate an integrated approach to the planning and monitoring of hospital, community and other relevant services. The proposed analyses should, in particular, help to improve

decisions about which health care activities to expand or contract and about beneficial trade-offs between hospital and community care.

1.16 In structuring information about community health services, we have drawn an important distinction between:

- a. services **to** the community, and
- b. patient care **in** the community.

Services **to** the community are services of prevention or intervention which are provided as a matter of public policy rather than in response to individual demands for treatment or care. They form the subject of Part I of this Report. Patient care **in** the community is the treatment or care outside hospital of patients with identified physical or mental illness or disability. These services are dealt with in Part II.

1.17 Within this main division, we have identified a series of community programmes — the equivalent, in information terms, of specialties in hospital-based services. This framework will permit managers to assemble information to answer the important questions:

- a. Why is the service under a particular programme being provided?
- b. Who should be receiving it?
- c. What is actually being achieved?
- d. How much is it costing?

1.18 Part I of the Report comprises four chapters on information about services to the community. A model information system is discussed in Chapter 2. In Chapters 3, 4 and 5 we specify the data items to be collected about these services.

1.19 Part II (Chapter 6) deals with patient care services in the community. We recommend a format for a model information system and the data items to be collected.

1.20 Part III includes three Chapters. Information required primarily for operational management is discussed in Chapter 7. Chapter 8 deals with data collection in the light of developments in information technology. In Chapter 9 we consider the information requirements of DHSS.

1.21 Part IV contains a summary of our recommendations and the following Annexes:

- I. Composition of Steering Group and Working Group D
- II. Steering Group Reports
- III. A categorisation of activities with patients and clients.

Part I

2 A model information system for services to the community

SERVICE PROGRAMMES 2.1 Different management levels and different management tasks require varying amounts of detail about the services which are dealt with in this Part of the Report. To satisfy this range of needs we propose a hierarchy of aggregations, and **recommend** that information about these services be collected under individual programmes and be aggregated into programme types and broad categories. A programme may be directed towards preventing or identifying a particular disease or condition, or towards supporting or advising a particular group of the population. Table I illustrates this structure by giving examples of programmes and the recommended aggregations.

Table I *Structure of Services to the Community*

Categories of Programme	Types of Programme	Programmes (Examples only)
a. immunisation (Chapter 3)		i. measles ii. rubella
	(i. surveillance, including health (service activity relating to special educational needs	i. anticipatory care for elderly ii. developmental assessment of pre-school children
	(	
b. health surveillance and early detection of disease (Chapter 4)	(	
	(ii. screening for specific conditions	i. hypertension in adults ii. hearing impairment in school children
	(	
	(iii. contact tracing	i. sexually transmitted diseases ii. tuberculosis
	(	
c. health promotion and education, and professional advice and support (Chapter 5)	(i. health promotion and education	i. modifying smoking habits ii. improving dietary habits of elderly living alone
	(	
	(	
	(ii. professional advice and support	i. post-natal care of mother ii. counselling of families of drug abusers or those associated with child abuse.
	(	

2.2 In aggregating programmes in this way, we are conscious that there are often no strict boundaries between them. This applies particularly to those dealt with in Chapters 4 and 5. We believe, nonetheless, that our definitions will enable adequate working distinctions to be made for data collection purposes.

2.3 The interest in a particular category or type of programme may centre on its contribution to child health services and, where appropriate, specific data sets are proposed for services to children. Information about school health services, which are essentially an administrative arrangement, will be available under the various programmes to which they contribute. Insofar as health authorities have a statutory duty to provide services to pupils in

attendance at schools, they will need to collect data in a way which allows them to monitor the overall level of school health services and the resources devoted to them. Information for the operational management of these and other services is considered in Chapter 7.

THE MODEL INFORMATION SYSTEM

2.4 The model information system is intended to systematise and facilitate local decisions about priorities and resource allocation by giving explicit expression to objectives and their achievement. The model is designed to be sensitive to differences between districts in the organisation and delivery of services and can be extended to reflect local requirements. The actual number and range of programmes within each category or type will be determined by each district in the light of local circumstances and priorities. The classification of data under these programmes will provide management with information about the pattern of activity within different services and client groups.

2.5 We **recommend** that the data about each programme covered by this Part of the Report be assembled, as appropriate, in line with the following format:

- a. statement of local policy and objectives, including target level of coverage;
- b. estimated target population;
- c. projected expenditure;
- d. level of service provided;
- e. coverage achieved, for comparison with target; and
- f. estimated actual expenditure, for comparison with projection.

This information should be produced annually for each programme.

Policy, objectives and target level of coverage

2.6 When establishing and reviewing local policies and objectives, and setting targets for the various programmes of care, district health authorities will wish to take into account both national and regional policies and guidelines, and local needs and priorities.

Estimated target population

2.7 For some programmes, such as those directed to an age group, estimates of the target population will be available from various sources, eg OPCS and local authorities. Progress has been made, and no doubt will continue to be made, in the availability of small area population estimates and projections. Once Family Practitioner Committee lists are computerised, age/sex population data can be made available for the planning of community health programmes, subject to agreed safeguards as to levels of aggregation. A place of residence code will be essential for detailed geographical analysis.

2.8 For other programmes, estimates have to rely on knowledge of local circumstances and on published work about prevalence and incidence of disease or disability. The Joint Working Group with the Faculty of Community Medicine is considering this issue.

Projected and actual expenditure

2.9 Our Sixth Report, which deals with financial information for management, will be concerned with aligning financial analyses with the proposals made here. Current analyses relate largely to the way services are organised and delivered by different staff groups. In the absence of a

computer system, analysis by programme will depend on improved methods of apportioning costs; with a computer system, it will be possible to use routine timings data. In either case, reliable costing and sound budgeting require accurate and well-structured activity data.

Level of service provided

2.10 The minimum data sets in this Report will make available information about the level of service provided by, or on behalf of, the district health authority.

Coverage achieved

2.11 To be complete, information about the extent to which a particular programme is reaching its target population requires data from all those who deliver the service. For many programmes, unless information is available about the contribution of general practitioners, the coverage achieved cannot be known and district health authorities will be unable to assess the adequacy of their own provision.

2.12 Further progress in this area will depend on the willingness of local practitioners to share information about their work, both in terms of aggregated data and at the level of the individual patient. While aggregated data may be sufficient for assessing the coverage of a programme, information about individual patients is needed to plan the delivery of services.

2.13 We **recommend** that district health authorities explore with local general practitioners ways of obtaining, in accordance with agreed safeguards, data about the general practice contribution to programmes, comparable to the minimum data sets which we propose in this Part of the Report. In this connection, we welcome the initiative of the Royal College of General Practitioners in setting up a working party to identify a minimum data set for general practice.

2.14 Because of population movement into and out of the district, information about coverage cannot be based simply on data about services delivered within the district, but depends on the use of a population register which relates data on the service to data on the individual. We discuss population registers in Chapter 8 in the context of information technology.

**DATA COMMON TO
MOST PROGRAMMES**

2.15 The minimum data sets recommended in Chapters 3—5 for different types of programme share certain characteristics:

- a. a key component of data collection is the face-to-face contact;
- b. most include data on:
 - i. location; and
 - ii. the sex and age, or age group, of the patient or client.

2.16 The face-to-face contact is a measure of patient activity. We **recommend** that all face-to-face contacts (whether domiciliary visits or clinic attendances) be classified by programme on the basis of their principal purpose, as distinct from other activities that may occur in the course of the contact. We accept that, for instance, a home visit to undertake developmental assessment, as part of a structured child health surveillance programme, may also involve counselling of the mother and other members of the family. However, if every activity which formed part of a contact were to be classified by programme, the effect would be to confuse, rather than clarify, the overall picture from the point of view of service planning.

Only where a contact specifically combines more than one objective (for example, if a child attends a clinic for both vaccination and developmental assessment) should it be recorded under more than one programme.

2.17 For services to the community we **recommend** that only one contact be recorded even if more than one health professional is present during the visit or attendance.

2.18 We recognise that contacts differ greatly both in their duration and in the type of activity and staff involved, and that, as a consequence, their resource implications vary considerably. A count of contacts cannot be used as a measure of work done either by individual members of staff or staff groups. We discuss information for operational management in Chapter 7.

2.19 We **recommend** that, as a minimum, location be classified as follows:

- a. patient's home;
- b. health centre;
- c. other premises occupied by general practitioners;
- d. day care facility;
- e. other clinic premises;
- f. elsewhere on a hospital site;
- g. residential accommodation provided by local authority;
- h. other premises provided by local authority:
 - i. school,
 - ii. other;
- j. residential or other facility provided by voluntary or private agency.

2.20 The age group of those receiving services to the community will usually be implicit in, or apparent from, the definition of the target population for a particular programme. Districts may require a more detailed classification of age for some programmes; computerised systems will facilitate analysis by year of age. We leave the breakdown of age to local discretion, except where statutory duties or national guidance indicate otherwise. For the purpose of monitoring school health services, health authorities should, as a minimum, be able to identify services provided to children of school age (broadly defined as 5—16), within the various programmes.

3 Information about immunisation

INTRODUCTION

3.1 Immunisation programmes are directed against the more serious communicable diseases and information is currently required in respect of pertussis, diphtheria, tetanus, poliomyelitis, measles, rubella and tuberculosis. Most programmes are provided for children and aim at comprehensive coverage. Programmes for adults tend to be reactive, rather than proactive, but a notable exception is rubella immunisation for adult women who have not already achieved immunity.

3.2 An immunisation programme aims to maintain adequate levels of immunisation. The actual level of immunity to a particular disease is not a function of the immunisation programme alone. A proportion of the population may achieve immunity to measles, whooping cough and tuberculosis by natural infection. Total immunity of the population is not possible because:

- a. no vaccine is completely effective;
- b. some individuals have contra-indications to immunisation;
- c. some reject the offer of immunisation.

3.3 A target level of immunisation will be set locally for each programme within national guidelines and accepted medical practice, and taking account of current risks. An assessment of current risks will require data on incidence of the disease. Although incidence may be incompletely notified, changes in levels of notification are important and can be monitored. Information on incidence may also be available from the OPCS and the Royal College of General Practitioners' 'spotter practices'.

3.4 A programme of immunisation against a particular disease will comprise one or more courses for each patient, eg a primary and a booster course, each of which may require more than one dose to an individual.

PROGRAMMES FOR CHILDREN

3.5 The scheduling and administration of child immunisation programmes cannot be managed adequately without computer assistance. Assuming the use of a computer system which is based on a nominal roll on which the name, address, date of birth and sex of each child in the district are already identified, we **recommend** that the following data items be collected for each course of immunisation for each individual:

- a. disease programme,
- b. date and result of any test of immunity,
- c. whether course was started,

- d. whether course was completed,
- e. reason for not starting or completing the course,
- f. location where course given (classified as in paragraph 2.19), and
- g. date of completion or termination.

3.6 A test of immunity may be carried out to assess the need for a course. We **recommend** that the result of any such test be classified as:

- a. child immune, or
- b. child not immune.

3.7 A course may not be started or completed for a variety of reasons. We **recommend** that the reason for not starting or completing a course be classified as:

- a. course considered unnecessary,
- b. contra-indications to administration of the course,
- c. refusal to start or complete the course,
- d. adverse reactions to a dose,
- e. contact lost with child because:
 - i. transferred, or
 - ii. other reasons.

PROGRAMMES FOR ADULTS

3.8 Although it would be desirable to collect the same data about immunisation programmes for adults, this may not be feasible without a computerised register. We therefore **recommend** that, as a minimum, the following data be collected on each course of immunisation for each individual:

- a. disease programme,
- b. whether course was completed,
- c. location where course given (classified as in paragraph 2.19), and
- d. age and sex of patient (unless implicit in programme — see paragraph 2.20).

GOOD PRACTICE

3.9 It would be good practice in the longer term to include data about specific side effects and to link these to data on the vaccine and location of the course. However, the linking of side-effects to vaccine is not feasible at present, because existing batch identifiers are not structured to allow reliable computer retrieval. We **recommend** that the feasibility of developing a standard coding system be investigated which would enable individual vaccine batches to be reliably identified. This need not replace manufacturers' existing batch numbers, but could allow a unique linkage back to them.

3.10 Where possible, data on the occurrence of conditions should be linked to the patient's immunisation history. For certain conditions the form of notification of infectious diseases could provide such a link and for this purpose we **recommend** that it include the patient's date of birth, rather than age.

3.11 In practice, not all individual notifications may be seen by the district health authority in which the patient lives. We **recommend** that local practice in processing disease notifications be reviewed and, where necessary, arrangements introduced to ensure that the notification, or a copy of it, is available to the DHA where the patient resides.

4 Information about health surveillance and early detection of disease

INTRODUCTION

4.1 The category "health surveillance and early detection of disease" covers programmes which are undertaken to identify disorders of health or development, or specific diseases, as the basis for therapeutic or remedial intervention. This category includes three closely related types of programme:

- a. surveillance (including health service activity relating to special educational needs);
- b. screening for specific conditions; and
- c. contact tracing.

SURVEILLANCE

4.2 A surveillance programme is undertaken in order to detect conditions which can be treated, or their adverse consequences reduced, more effectively by earlier, rather than later, intervention. It involves an assessment of a selected group of the population by means of practical and uniform observations or measurements which can be applied rapidly. Surveillance programmes also help to determine trends in health status and the occurrence of particular conditions among target groups. Examples are general oversight of the health of the very elderly within the framework of anticipatory care or developmental assessment of pre-school children.

4.3 Survey techniques, such as postal questionnaires, are sometimes used to identify appropriate target groups. The selection of a sub-population for surveillance should be subject to agreed ethical standards and open to scrutiny.

4.4 A contact should be classified as surveillance only if it occurs as part of a structured programme. A surveillance contact may involve a number of examinations (eg of sight, hearing, height and weight). These should not be separately identified within the minimum data set, which relates to the surveillance contact as a whole. Data about individual examinations will, of course, be recorded for clinical purposes and analyses can be available if a computerised register is used.

4.5 A child health surveillance programme will include a number of stages related to the development of the child, both before and during the school years. The key ages at which contact is made vary from district to district, depending on the characteristics of the population and on local policies. We **recommend** that data be collected for each stage of the programme.

4.6 We **recommend** that the following data be obtained about each surveillance contact:

- a. age and sex of the client (cf paragraph 2.20),
- b. programme (or stage of the programme) within which it is carried out,
- c. location (classified as in paragraph 2.19), and

d. result.

4.7 In addition to the coverage of the programme (discussed in Chapter 2), district management will wish to know the extent to which a surveillance programme identifies a need for further action. We therefore **recommend** that, as a minimum, the result of a surveillance contact be classified as:

- a. no further action required,
- b. further action required:
 - i. by health service, or
 - ii. by another agency eg social services, education authority.

District health authorities with a computerised child health register will have access to more detailed data about the outcome of a surveillance programme for children.

HEALTH SERVICE ACTIVITY RELATING TO SPECIAL EDUCATIONAL NEEDS

4.8 New procedures for assessing and making provision for special educational needs have been introduced as a result of the Education Act 1981, with wide-ranging implications for the health service which have only recently begun to be felt.

4.9 Potential learning difficulties may be identified in the course of a surveillance examination either before or during the school years and, in such cases, the district health authority will notify the education authority of the possible need for special educational provision. The education authority will also identify school-age children who appear to have a special educational need. It is for the education authority to decide which children require multi-disciplinary assessment to establish whether, and what type of, special educational provision is in fact required; health service support will be requested for any such assessment. A multi-disciplinary assessment may result in the completion of a statement of special educational needs, in accordance with the 1981 Act, which may include requirements for particular health services. Children for whom a statement is not considered necessary under the Act may still be identified as in need of continuing support from the health service.

4.10 The district health authority therefore has three main responsibilities in relation to special educational needs:

- a. to identify potential needs;
- b. to contribute to assessment; and
- c. to provide supporting services for those with special needs.

4.11 We **recommend** that the following data be obtained about each notification by the health service to the education authority of a child potentially in need of special educational provision:

— age and sex of the child.

District management may also wish to know the number of children notified to the education authority by the health service who actually receive a multi-disciplinary assessment.

4.12 We **recommend** that the following data be available about all multi-disciplinary assessments involving health and education staff regardless of

the source of notification:

- a. age and sex of the child; and
- b. result.

4.13 We **recommend** that, for health service purposes, the result of a multi-disciplinary assessment be classified as:

- a. statement of special educational needs completed by education authority which includes requirement for health services,
- b. statement not completed but support required from health service, or
- c. no health service support required.

The inclusion of results of multi-disciplinary assessments within a computerised child health register will provide access to more detailed information about special educational needs identified. District management may also wish to consider ways of obtaining information about the type of health services included in statements of special educational needs, in order to assess the likely demands on particular services.

SCREENING FOR SPECIFIC CONDITIONS

4.14 A screening programme is directed towards the detection of specific conditions in a target group: for example, cervical cytology in women of a particular age group, or hypertension in all adults of a particular age group. Screening makes use of tests which can be applied rapidly to apparently well persons as a means of distinguishing those who probably have the condition from those who probably do not. A screening test is not intended to be diagnostic, and a positive result has to be followed up by more discriminating procedures. For the purposes of screening programmes as defined here, we exclude tests which form an integral part of a surveillance examination (see paragraph 4.4).

4.15 A routine information system cannot measure either the "sensitivity" of the screening procedure, ie the ability to give a positive result when the person tested does, in fact, have the condition, or its "specificity", ie the ability to give a negative result when the person tested is free of the condition. Since no follow-up diagnosis will be available when the test result is negative, only the predictive value of the procedure is measurable routinely, ie the frequency with which positive results are subsequently confirmed by diagnostic tests.

4.16 We **recommend** that the following data be collected about each screening test:

- a. age and sex of the client (cf paragraph 2.20),
- b. programme within which it is carried out,
- c. location (classified as in paragraph 2.19), and
- d. result.

4.17 In addition to the coverage of the programme, district management will require information about the results of screening procedures: in particular, the extent to which a programme identifies cases of the disease or condition. We therefore **recommend** that the result of a screening test be classified as:

- a. negative,
- b. positive:
 - i. confirmed, or
 - ii. not confirmed.

4.18 A programme for the repeated screening of a vulnerable population may involve a recall scheme rather than rely on the individual to return for further tests. District management will require information about the extent to which those invited actually attend for screening and the number of confirmed cases which are found as a result. We therefore **recommend** that the following data be obtained about each recall invitation:

- a. age and sex of the client (cf paragraph 2.20),
- b. screening programme within which it is issued,
- c. whether screening test carried out, and
- d. result of screening test (classified as in paragraph 4.17).

CONTACT TRACING

4.19 Contact tracing is conducted in connection with sexually transmitted and other infectious diseases, such as tuberculosis. Whilst the concept of coverage in relation to a target population is not relevant to contact tracing programmes, district management will wish to know to what extent contacts who are sought are actually traced and the number of cases of the disease identified as a result.

4.20 We **recommend** that the following data be collected about each person on whom tracing is initiated:

- a. age and sex (cf paragraph 2.20),
- b. disease programme,
- c. whether traced,
- d. if so, whether found to have the disease.

5 Information about health promotion and education, and professional advice and support

INTRODUCTION

5.1 There has been considerable debate about the nature and definition of health promotion and health education. All health service personnel in contact with the public have the opportunity to promote a positive approach to health. Although health promotion is usually an intrinsic aspect of other work and it would be quite impossible to obtain comprehensive information about it, data can be collected on specific health promotion programmes.

5.2 Within services to the community, health visiting is characterised by its concern for the promotion of health. We considered whether the health visitor's role in family casework or in relation to (for example) play groups, day nurseries and child minders, where not falling within a structured programme of surveillance, should be classified as health promotion. We have concluded, however, that such activities are more appropriately seen as constituting programmes of 'professional advice and support'.

HEALTH PROMOTION AND EDUCATION

5.3 A health promotion programme may be directed to a particular function (eg parenthood), condition (eg obesity), or aspect of behaviour (eg drug-taking), or to a particular group of the population. The programme may involve both the holding of group sessions and the dissemination of literature or publicity. Although the concept of coverage in relation to target population cannot readily be applied to health promotion programmes, we **recommend** that, as far as possible, the model information system outlined in paragraph 2.5 be used as a basis for evaluating results in relation to objectives and use of resources.

5.4 We **recommend** that, as a minimum, the following data be collected in respect of each group session provided for members of the public:

- a. programme within which it is provided,
- b. staff group providing it,
- c. number of clients attending, and
- d. location (classified as in paragraph 2.19).

5.5 We **recommend** that the staff providing a group session be classified as:

- a. health education department,
- b. health visiting staff, or
- c. other community health staff.

5.6 Data on ante-natal clinics provided by midwives and health visitors are dealt with in Chapter 5 of our Fourth Report and should not be classified under a health promotion programme.

5.7 Health education departments are also involved in training and advising health service and other staff on health education issues and techniques. It is this activity which is now widely regarded as health education, as distinct from the promotion of health. District management may wish to have data

about the total activity of the health education department, for operational management purposes (see Chapter 7).

PROFESSIONAL ADVICE AND SUPPORT

5.8 This type of programme is closely linked, in practice, to surveillance: any supportive contact provides an opportunity for oversight of the health or development of the client. However, as stressed in paragraph 4.4, a contact should be classified as surveillance only when it forms part of a structured surveillance programme; we **recommend** that other supportive contacts be recorded under a professional advice and support programme.

5.9 Professional advice and support will cover a variety of locally determined programmes aimed at particular groups in the population such as those recently discharged from hospital, mothers of new-born babies and other families with young children, the recently bereaved, people caring for the elderly or the elderly themselves. The experience of health visitors will often make a valuable contribution to the identification of target groups and to the setting of objectives for programmes.

5.10 As noted in Chapter 5 of our Fourth Report, in the context of maternity services, we **recommend** that post-natal care provided by midwives and health visitors be classified as professional advice and support, ie a programme directed to mothers of new-born babies. Such a programme will need to be distinguished from surveillance of the child.

5.11 Some programmes will be 'proactive', others less so. Where a programme is essentially 'reactive', the concept of coverage in relation to population cannot readily be applied and only a broad estimate of the target group may be possible. However we **recommend** that the age range or client group served be specified explicitly for each programme and that the model information system outlined in paragraph 2.5 be applied as far as is appropriate.

5.12 District management need to know about the level of service provided with each programme, both in terms of total contacts and the number of people receiving a service. A patient-based computer system will facilitate a direct head count for the year, but for manual systems the first contact in the financial year will have to be recorded.

5.13 We **recommend** that the following data items be obtained about any contact where the provision of professional advice or support is the principal purpose:

- a. age and sex of the client (cf paragraph 2.20),
- b. programme within which it occurs,
- c. whether first in financial year (manual system only), and
- d. location (classified as in paragraph 2.19).

Part II

6 Information about patient care in the community

INTRODUCTION

6.1 We have drawn a fundamental distinction between services to the community and patient care in the community. In this Part of the Report we consider community patient care: services to patients with identified physical or mental illness or disability. These services are provided mainly, but not exclusively, by district nurses and by community psychiatric and mental handicap nurses. The community based activities of other health professionals have been reviewed as follows:

- a. health visitors, in Chapters 3—5 of this Report and Chapter 5 of our Fourth Report (ante-natal care);
- b. midwives, in Chapter 5 of our Fourth Report (ante-natal care), and Chapter 5 of this Report (post-natal care); and
- c. paramedical staff, in Chapters 3 and 4 of our Fourth Report.

6.2 The balance between hospital and community patient care is central to health services policy development at both local and national levels. The balance of care has been shifting towards the community for two main reasons:

- a. the inappropriateness of an institutional environment for many forms of care; and
- b. the trend towards shorter lengths of stay in hospital.

6.3 Because of the implications for the quality and cost of services and for the deployment of resources, district management requires an information system which enables them to monitor and evaluate changes in the balance of care. Yet, there has been little systematic information about community patient care to set against that available about hospital services, in such a way as to permit patient care services to be reviewed as a whole.

6.4 Pressure on community patient care services is particularly sensitive to demographic changes and district management requires information about the impact of the growing numbers and increasing dependency of the elderly population. These demands are reflected not only in the volume of services required but also the way services are organised and delivered, for example, the provision of night nursing services.

6.5 In this Chapter we make recommendations about:

- a. programmes of patient care delivered by nurses working in the community;
- b. a model information system;
- c. data items to be collected, together with their associated definitions and classifications; and
- d. the management information component of the data set for a patient based computer system.

In addition, certain items considered but not recommended are discussed.

PATIENT CARE PROGRAMMES

6.6 We **recommend** that information about patient care services in the community be collected under the programmes set out in Table II:

Table II Structure of Patient Care Programmes

- | | |
|--------------------|---|
| a. General | — corresponding to services provided by district nurses |
| b. Mental illness | — corresponding to services provided by community psychiatric nurses |
| c. Mental handicap | — corresponding to services provided by community mental handicap nurses |
| d. Other | — corresponding to services provided by other nurses working in the community (eg Marie-Curie nurses, Stomatherapists, Macmillan nurses). |

6.7 District management needs to know the extent to which services planned for particular groups of patients are reaching those patients. Although we have taken the view that presentation of activity data in terms of staff groups tends to obscure, rather than illuminate, the nature of services to the community, this is not the case with patient care in the community. District, community psychiatric, and community mental handicap nursing services can, in fact, be associated with specific patient groups. We do, however, recognise that, as in the case of classification by hospital specialty, the association of programmes of care with service providers can only be an approximation and will tend to oversimplify the way services are actually delivered.

6.8 Most community nursing care (as defined in this Chapter) will continue to be provided by district nurses. However, the emergence of community psychiatric and mental handicap nursing has been a key feature of the systematic shift of mental health provision away from hospital, and is now a common strand in health authority planning. Community psychiatric and mental handicap nursing services can therefore be expected to play an increasing part in community patient care and information about them will be a valuable component of any assessment of the balance of care in mental health services. Other nurses working in the community, such as Marie Curie and Macmillan nurses, will also be making a significant contribution to the delivery of specialist forms of care.

THE MODEL INFORMATION SYSTEM

6.9 We **recommend** that the data about each of the four programmes outlined in Table II be assembled annually in the format of the following model information system:

- a. statement of local policy and objectives,
- b. information about related local authority and voluntary sector services,
- c. estimated present and prospective catchment population,
- d. projected expenditure,
- e. data about patient activity, and
- f. estimated actual expenditure.

Policy and objectives

6.10 The statement of local policy and objectives should include information about the planned balance between hospital and community care and anticipated implications for the hospital and community health services.

THE MINIMUM DATA
SET FOR PATIENT
ACTIVITY

6.11 The planning and delivery of health services depend on information about existing and planned local authority, private and voluntary sector provision of residential, day care and domiciliary services. Effective collaboration requires both an interchange of statistical information and continuing consultation.

6.12 The data about patient activity considered here are those which district management needs as part of the model information system to support its planning and monitoring functions. Additional data required for operational management are discussed in Chapter 7. The management component of a patient-based computer system is discussed in paragraphs 6.24—6.26.

6.13 As an indicator of the volume of service provided, district management needs to know how many contacts took place during a specified period within each community patient care programme (as defined in Table II). A contact is an event in which a patient is seen by a nurse face-to-face and may be either a clinic attendance or a domiciliary visit. We **recommend** that all face-to-face contacts be recorded.

6.14 Because the programmes in Table II are defined by the discipline of the nurse providing the service, we **recommend** that, if nurses from different staff groups are present during the visit or attendance, one contact should be recorded for each staff group (ie programme, as defined in Table II). Where more than one nurse of the same staff group is present, we **recommend** that only one contact be recorded for the relevant programme.

6.15 A contact is therefore a measure of patient activity. We recognise that, in workload terms, contacts with patients differ greatly — depending on the number and type of staff involved, the duration of the contact and the range of activity carried out. As a consequence, the resource implications vary considerably and a simple count of contacts cannot be used as a measure of work done either by individual members of staff or staff groups. We discuss information for operational management in Chapter 7.

6.16 An important indicator of activity within a programme is the number of episodes of care starting in a specified period. An episode of patient care comprises all the face-to-face contacts made with a patient in the district by the staff group associated with a particular programme (as defined in Table II). The first occasion on which a patient is seen by a member of the relevant staff group is the initial contact. An episode is terminated either by the patient being formally discharged or not being seen by the relevant staff group for at least six months. We **recommend** that all initial contacts be recorded.

6.17 District management needs to know how many individual patients receive care in the district, within each programme, during a specified period. Our First Report recommends that all clinical activity returns be based on the financial, rather than calendar, year. In a manual system, a count of patients for this year can be obtained by recording their first contact with the relevant staff group in the financial year. We **recommend** that all first contacts in the financial year be recorded as part of a manual system.

6.18 It is crucial to the collection of comparable data that initial contacts and first contacts in the financial year refer to the district and not to individual locations or management units; a change of location or unit does not in itself generate a new episode or first contact.

6.19 Information about the pattern of activity in, and demands on, community patient care may be obtained by recording:

- a. the programme in which a contact occurs,
- b. the location at which a contact takes place,
- c. the age of the patient,
- d. the sex of the patient, and
- e. the source of referral of the patient.

6.20 We **recommend** that the following data items be collected:

a. **for all contacts:**

- i. programme (classified as in Table II),
- ii. location,

b. **for all initial contacts and first contacts in the financial year:**

- iii. age of the patient,
- iv. sex of the patient, and

c. **for all initial contacts:**

- v. source of referral.

6.21 We **recommend** that the location of a contact be classified as:

- a. patient's home,
- b. health centre,
- c. other premises occupied by general practitioners,
- d. day care facility,
- e. other clinic premises,
- f. nursing home,
- g. hospice,
- h. residential accommodation provided by local authority,
- j. other premises provided by local authority,
- k. residential or other facility provided by voluntary or private agency.

6.22 We **recommend** that, as a minimum, the age of the patient be classified as:

- | | |
|-----------|-----------------|
| a. 0—4, | e. 65—74, |
| b. 5—16, | f. 75—84, or |
| c. 17—54, | g. 85 and over. |
| d. 55—64, | |

6.23 There is a variety of sources of referral, including cross-referrals between nursing disciplines. We **recommend** that, as a minimum, the source of referral of a patient be classified as:

- a. hospital staff, or
- b. staff working in the community/general medical practitioners.

PATIENT-BASED COMPUTER SYSTEMS

6.24 Data sources, data processing systems and the use of information technology are examined in Chapter 8. For community patient care, the management data content of a computer-based patient administration/information system will be broadly the same as for a manual system. However, because the data will be structured around a computerised file, various outputs can be generated automatically (such as a count of patients for the financial year or detailed age/sex analyses), thus removing the need for some aspects of data collection (eg first contact in financial year, age of the patient at particular contacts).

6.25 We **recommend** that, for management purposes, the minimum content of the file should be:

- a. patient identifier,
- b. date of birth,
- c. sex,
- d. post-code,
- e. date of initial contact,
- f. source of referral, and
- g. for each contact:
 - i. date,
 - ii. location (classified as in paragraph 6.21), and
 - iii. programme (classified as in Table II).

6.26 The scope for analysing hospital referrals by clinical specialty will secure an important link between hospital and community services, with potential benefits for planning and costing across the whole range of patient care services. We **recommend** that, under a computer-based system, source of referral be classified as:

- a. hospital specialty of consultant responsible on discharge (as defined and classified in paragraph 5.21 of our First Report), or
- b. staff working in the community/general medical practitioners.

ITEMS CONSIDERED BUT NOT RECOMMENDED FOR NATIONAL SYSTEM

6.27 The degree of social support available to the patient is often the key determinant of the length and intensity of care required. We would commend it as good practice for the degree of social support to be coded within a computerised system. A dependency scale related to functional impairment might also be incorporated. A variety of classification systems has been developed for social and functional dependency, but at this stage we are not recommending a particular system. Districts wishing to adopt such a classification will need to agree a suitable system locally.

6.28 The Interim Report proposed that patient care in the community be classified by three main programmes:

- a. short term care,
- b. long term care (sub-divided into mental handicap, mental illness and other),
- c. terminal care.

The distinction between short and long-term care was to be made on the basis of management intention, in terms of the expected duration of the episode ie the length of time the patient would need nursing care.

6.29 This proposal occasioned considerable debate during consultation and pilot trials. Whilst it was acceptable to many in principle, it attracted the criticism which is levelled against any classification based on care groups: that the variety of characteristics and conditions affecting the individual patient makes it impossible to achieve a consistent classification. Views were divided about the feasibility of relying on management intention to predict the duration of care at the start of an episode, and about the appropriate "cut-off" point. Our pilot trials were inconclusive on these issues.

6.30 Although we have decided not to define programmes in terms of care groups, the programme structure we recommend in Table II can be used, in combination with age and length of episode, as a proxy for a care group classification. A computerised patient administration/information system will enable various "programmes" to be generated from different permutations of data. Key diagnoses (such as stroke, multiple-sclerosis, alcohol or drug dependency) might be included, provided suitable coding arrangements can be agreed locally. Because such a system provides ready access to retrospective data, changes in the balance between short and long term care can be identified from trends in length of episode.

Part III

7 Information for operational management

INTRODUCTION

7.1 In formulating the proposals of this and our other Reports, we have concentrated primarily on the information required by a district health authority and its management team. As we explained in the introduction, the variety of departmental arrangements and the individual styles and approaches of operational managers militate against national prescription of standard data sets for every discipline and department. However, in the discussions with the NHS preceding the publication of the Interim Report on community health services and in the consultation which followed, we have been persuaded that a brief discussion of operational issues would be welcomed by managers at unit level and below. In the present Chapter, therefore, we offer advice and commend certain good practices, while trying not to be unduly prescriptive.

7.2 For the day to day deployment of resources, managers at the operational level need to know not only the type of service given to patients and the broad objectives for delivering it, but also who delivers it and how it is being done. Information about programmes answers the first two questions. To answer the last two, information is also required about the staff providing the service and about the content and timing of work with patients in relation to other types of activity.

7.3 Information about workload is also needed for setting and monitoring departmental budgets, especially where, as in the case of community health services, much the largest proportion of expenditure relates to staff and staff groups.

INFORMATION ABOUT TOTAL ACTIVITY

7.4 The work of community health staff, like that of other health professionals, is not confined to direct contacts with patients or clients. Health visitors and community psychiatric nurses, for example, necessarily spend considerable time consulting with other health professionals concerned with care of the client, and liaising with non-NHS services, such as local authority housing and personal social services, or social security. Similarly, whilst services to the community provided as part of school health services will be covered by the information system proposed in Part I of this Report, some of the work of a school health service will not be reflected in that system, eg general advice to education authority or teachers on health matters. The workload of community health staff cannot, therefore, be measured solely in terms of "face-to-face" contacts.

7.5 Although information about patterns of work is available from research projects and national surveys, such as that conducted by OPCS in 1980¹, it would be good practice for a sample enquiry to be carried out in each district to determine the proportion of time spent by community health staff on different types of activity. We refer to local surveys of total activity

¹"Nurses working in the community" OPCS; 1982, HMSO.

in Chapter 3 of our Fourth Report, in the context of paramedical and similar services; surveys relating to community health staff activity might follow similar lines. The detailed categories to be included in the survey will vary between staff groups and are best resolved locally; where possible, however, they should align with the programme structure recommended in this Report.

INFORMATION ABOUT WORK WITH PATIENTS

7.6 At its simplest, work with patients may be recorded in terms of the number of visits made by each member of staff, or group of staff, or the number of attendances by patients and clients at clinic sessions: the number of contacts. However, we have already observed that contacts differ greatly in the time they take, in the type of activity undertaken and the staff involved. Because the resource implications vary so much, a simple count of contacts cannot be used as a measure of workload. Data are therefore needed about the content of the contact, particularly in relation to domiciliary visits, and about the number and type of staff involved in the contact.

7.7 For the purposes of operational management, therefore, we commend the following additional data about face-to-face contacts:

- a. type (visit or attendance), and
- b. content.

7.8 We also commend the following data about the staff involved:

- i. discipline,
- ii. grade,
- iii. management unit.

7.9 For services to the community (Part I), the classification of contacts by programme will provide some indication of content. However, as stipulated in paragraph 2.16, this classification will be based on the principal purpose of the contact, as distinct from incidental activities that may occur in the course of the contact. Similarly, the classification of patient care contacts in terms of the broad, service-oriented, programmes recommended in Part II, will necessarily give only a general indication of activity within the contact.

7.10 The Interim Report proposed a detailed categorisation of activities with patients and clients drawn from the OPCS survey (reproduced in Annex III). We are not aware of any other formal classification which has been pilot tested beyond the individual district, although similar systems are in use in some authorities; it has generally been welcomed by nurse managers as a practical tool for assessing workload, if only in a crude way. The data have, however, been criticised by some as "task-centred", overly concerned with technical procedures, and at odds with the philosophy of care planning which is an intrinsic part of the nursing process; further, the data are of limited relevance to community psychiatric and mental handicap nursing.

7.11 Clearly, any classification of data relating to treatment or care must be reviewed regularly in the light of changing clinical practice. In view of this, and the need for local flexibility at the operational level, we have concluded that the data to be collected about the content of patient contacts should not be specified as part of the minimum data set. We would, nonetheless,

commend the categorisation of activities in Annex III as a working model which can be modified and developed to suit different services and local requirements.

7.12 Whilst the type and content of patient contacts, together with data about the staff involved, will provide a guide to workload, they are difficult to aggregate in a way which can be related to the use of resources. For this, some time value is needed. This can be obtained either by recording the time taken for each contact as it happens, or by means of a timings enquiry to establish relative weights for different types of activity. Once a time value can be related to each activity, an automatic link is established with data about costs and expenditure.

7.13 Although a time element can be recorded within a manual system, it is not possible to aggregate and analyse the data to assist operational management; the same applies to any attempt to combine weightings with activity data. However, we **recommend** that the routine recording of the time taken by each contact be explored as part of a computer-based patient administration/information system. The merits of such an approach, as compared with timings enquiries, will need careful evaluation.

8 Data collection and information technology

INTRODUCTION

8.1 If our proposals for the data content of new information systems are to be feasible in all districts, they must be tailored to methods of data collection — the systems for capturing, collating and processing the data — which can be expected to be available within the timescale set for implementation. For community health services, this has meant taking into account the fact that, at present, most districts are dependent on manual systems. The recommendations of this Report do not, therefore, presuppose the use of computers, except in the case of child immunisation. However, although most of the minimum data sets could be implemented without the use of technology, the information produced will be severely restricted until computerised methods are available to manipulate the data and exploit their full potential.

8.2 We now anticipate, with some confidence, widespread application of information technology in the community health services, in a way that could not have been foreseen when we began our review. Indeed, we would expect that by April 1988, the date recently announced by the Secretary of State for nationwide implementation², computerised systems will be available for most areas of activity covered by this Report. Where districts find it necessary to implement the new system on a manual basis, we would urge them to look on this as a purely transitional phase, and to prepare themselves and their staff for the implementation of new technology at the earliest opportunity.

8.3 It is against this background that we discuss data collection systems and their relationship with information technology.

DATA SOURCES

8.4 We look to three basic sources of data:

- a. a population register: a nominal roll containing the name, address, date of birth and sex of members of the target group for a particular programme or series of programmes;
- b. a record of the activity of a clinic: this will include location and details of staff involved;
- c. a record of the activity of an individual member of staff: this usually takes the form of a daily diary sheet and will include the name and other details about the member of staff concerned.

8.5 A population register is essential for effective management of immunisation, surveillance and screening programmes: for scheduling

²HC(84)10

appointments, issuing invitations and day-to-day management of the programme. The completeness and accuracy of population registers would be much improved if they were based on lists held by Family Practitioner Committees. Computerisation of these lists should remove the technical obstacles to the development of an integrated population index for community programmes, but there are professional and ethical issues which remain to be resolved. We note the recommendation of the Joint Working Group on Collaboration between FPCs and DHAs³ that the DHSS should, at an early opportunity, open up a wider public debate about these issues. We believe that none of the obstacles is insurmountable and, given a full understanding of the issues involved and benefits achievable, the co-operation of all parties will be secured.

8.6 Where a programme is managed with a population register, data for planning and monitoring should be obtained, as far as possible, from the register, with the minimum supplementary data collection by field staff or at the clinic. The register should therefore be a source of information not only about coverage achieved within the programme but also the level of service provided. In practice, it is difficult to operate a population register effectively and to extract the required data without computer assistance.

DATA PROCESSING SYSTEMS

8.7 Where we use the term 'manual' in this Report, we have in mind a system under which data are not only captured and collated by traditional clerical methods (eg daily diary sheets, monthly summaries), but also analysed without computer assistance.

8.8 We distinguish two main types of computer-based system:

- a. a management information system, and
- b. a patient administration system which provides management information as a by-product.

8.9 The management information system is more limited, in that it involves computerisation of the processing and analysis of data, but continues to rely on manual methods of data collection. The technology may be locally based (eg a microprocessor within the district), but the data are usually batch-processed at one centre from individual diary sheets or clinic records. Outputs are produced centrally, rather than available in real-time; nor is there provision for on-line interrogation or updating of the computer records. Even if such a system is 'patient-based', insofar as the data within it relate to contacts with identified patients, it will remain essentially a management information, rather than patient administration, system, so long as access to the patient record is not readily available for operational purposes.

8.10 A patient administration system is designed primarily to assist in the delivery of services to the patient, eg the scheduling of visits and clinic appointments; data for management are obtained as a by-product of these service delivery functions. It is therefore an operational, rather than management information, system. Day-to-day running of the service in a

³Report of the Joint Working Group on Collaboration between Family Practitioner Committees and District Health Authorities; DHSS, 1984.

fast-moving, demand-led, environment (such as patient care in the community) calls for real-time facilities which can be used for active management of patient records. Such facilities need to include provision for on-line updating, as well as rapid access to individual records by means of terminals in various sites. The system should be able to generate both routine and ad hoc statistics for planning and operational management.

8.11 Computer applications which are currently being developed or under consideration are:

- a. child health systems,
- b. community nursing care systems, and
- c. community management information systems.

Child Health Systems

8.12 Screening and surveillance of children, as well as immunisation, require a level of administration and co-ordination which cannot be undertaken effectively without a computer-based system. As most programmes directed towards children are intended for every child, there is agreement on the need to develop a single integrated administrative system in each district designed to schedule appointments and to ensure an accurate record of immunisation, surveillance, screening tests and action in relation to special educational needs.

8.13 A national Child Health System is being developed by the Child Health Computing Committee (CHCC) and the immunisation module has now been adopted by a majority of districts. The pre-school module was released in January 1984, following successful field trials. A report on trials of the school health module will be available by the end of 1984, with the intention of general release as early as possible in 1985.

8.14 The management information outputs of the system are being steadily developed, and the Child Health Computing Committee has been awaiting the publication of this Report before finalising a number of the facilities. The data sets and definitions within the system are compatible with our own recommendations and the CHCC intends to provide the full recording and output facilities required by this Report as a standard part of the Child Health System.

Community Nursing Care Systems

8.15 In Chapter 6 of this Report (information about patient care in the community), we have highlighted the advantages of a patient-based information system for community nursing care. In keeping with the general principle that routine data be obtained as a by-product of operational procedures, we believe that patient care information should ideally derive from a computerised patient administration system designed to improve the operation and delivery of services.

8.16 The full potential of a community nursing care system cannot be realised by a "stand-alone" development. The scope for links with other primary health care, as well as hospital, systems needs to be explored further; although progress towards integration will naturally depend on the attitude of the various parties concerned to the issues of principle involved in the sharing of information.

8.17 On the technical front, the scope for linkage depends on factors such as the rate of development in the use of computers for patient records in

general medical practice and family practitioner committees. We welcome the conclusion of the Joint Working Group³ that the need to facilitate the exchange of agreed information between DHAs and FPCs should be taken into account in developing new computer systems, and their recommendation that work be put in hand to agree data definitions and software and hardware standards for the interface between FPC and DHA systems.

8.18 A patient administration system for community nursing care should be capable of:

- a. performing functions related to the scheduling and delivery of services,
- b. supplying information for planning and monitoring and for operational management,
- c. providing rapid turn-round for operational management information,
- d. streamlining data capture and collation by community nurses,
- e. providing for eventual links to other patient administration systems, and
- f. safeguarding confidentiality.

Conclusions

8.19 Whilst a patient administration system will be the principal objective for many districts, we accept that others will be looking initially for a low-cost, practical solution to the immediate problem of improving management information in this key area. A management information system for community health services is being developed as part of the DHSS Pilot Project referred to in HC(84)10. We see a need for a choice of systems and have been exploring with the NHS Computer Policy Committee and the DHSS ways in which transferable packages might be developed.

³Report of the Joint Working Group on Collaboration between Family Practitioner Committees and District Health Authorities; DHSS, 1984.

9 Information for DHSS

9.1 In our other Reports our recommendations have, for the most part, been extensions or modifications of the existing data systems. However, the data sets we have recommended for community health services bear little relationship to current national statistical returns. It has not yet been possible to identify how best to exploit the new data sets to satisfy the requirements of the DHSS and of health authorities for national data.

9.2 The development of computer systems for community health services will clearly increase the potential availability of data at the national level. A number of developments may markedly influence DHSS requirements for information about community services:

- a. regional and district performance reviews,
- b. the setting up of the new management arrangements recommended in the Griffiths Report⁴, and
- c. the work being done on performance indicators.

Any recommendations made now about DHSS information requirements would inevitably have to be reviewed once the full implications of these developments emerged.

9.3 Although we have decided not to recommend specific formats in which the DHSS will obtain data about community health services, we **recommend** that, when these decisions are made, the following principles be borne in mind:

- a. the information should be that required by the DHSS to perform essential functions,
- b. the levels of aggregation chosen should permit sensible comparison between health authorities, and
- c. the information should be compatible with the minimum data sets recommended in this Report.

9.4 The following returns which are currently submitted to the DHSS are covered by the recommendations in this Report and will need to be replaced when the new systems are introduced:

- a. LHS 27/2 Clinical Services — Maternity and Child Health
- b. LHS 27/3 Nursing Services
- c. 8M(i) School Health Surveillance
- d. SBL 607 Vaccinations and Immunisations

⁴HC(84)13

- e. T145 Tuberculosis
 - f. SBL 655 Tuberculin Test and BCG Vaccinations
 - g. SBH 140 Cervical Cytology Screening
- 9.5 The following return will continue to be collected:
- SBH 60 Sexually Transmitted Diseases

Part IV

Summary of recommendations

PART I

CHAPTER 2 A MODEL INFORMATION SYSTEM FOR SERVICES TO THE COMMUNITY

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|---------------------------------------|--|
| Service Programmes | 1. Information about services to the community should be collected under individual programmes and aggregated into programme types and broad categories (para 2.1) |
| The model information system | 2. The data about each programme should be associated with information about local policy and objectives, target population and expenditure (para.2.5) |
| | 3. District health authorities should explore with local general practitioners ways of obtaining, in accordance with agreed safeguards, data about the general practice contribution to programmes (para 2.13) |
| Data common to most programmes | 4. All face-to-face contacts should be classified by programme on the basis of their principal purpose (para 2.16) |
| | 5. Only one contact should be recorded even if more than one health professional is present during the visit or attendance (para 2.17) |
| | 6. A classification of location is described (para 2.19) |

CHAPTER 3 INFORMATION ABOUT IMMUNISATION

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| Programmes for children | 7. A minimum data set for each course of immunisation is described (para 3.5) |
| | 8. A classification of the result of a test of immunity is described (para 3.6) |
| | 9. A classification of the reason for not starting or completing a course is described (para 3.7) |
| Programmes for adults | 10. A minimum data set for each course of immunisation is described (para 3.8) |
| Good practice | 11. The feasibility of developing a standard coding system should be investigated which would enable individual vaccine batches to be reliably identified (para 3.9) |
| | 12. The form of notification of infectious diseases should include the patient's date of birth, rather than age (para 3.10) |

13. Local practice in processing disease notifications should be reviewed and, where necessary, arrangements introduced to ensure that the notification, or a copy of it, is available to the DHA where the patient resides (para 3.10)

CHAPTER 4 HEALTH SURVEILLANCE AND EARLY DETECTION OF DISEASE

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| Surveillance | 14. Data should be collected for each stage of a child health surveillance programme (para 4.5) |
| | 15. A minimum data set about each surveillance contact is described. |
| | 16. A classification of the result of a surveillance contact is described (para 4.7) |
| Health service activity relating to special educational needs | 17. The age and sex should be recorded of each child who is notified by the health service to the education authority as potentially in need of special educational provision (para 4.11) |
| | 18. A minimum data set is described for all multi-disciplinary assessments involving health and education staff (para 4.12) |
| | 19. A classification of the result of a multi-disciplinary assessment is described (para 4.13) |
| Screening for specific conditions | 20. A minimum data set about each screening test is described (para 4.16) |
| | 21. A classification of the result of a screening test is described (para 4.17) |
| | 22. A minimum data set for each recall invitation is described (para 4.18) |
| Contact tracing | 23. A minimum data set to be collected about each person on whom tracing is initiated is described (para 4.20) |

CHAPTER 5 HEALTH PROMOTION AND EDUCATION, AND PROFESSIONAL ADVICE AND SUPPORT

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| Health promotion and education | 24. The model information system should be used as a basis for evaluating results in relation to objectives and use of resources (para 5.3) |
| | 25. A minimum data set to be collected about each group session provided for members of the public is described (para 5.4) |
| | 26. A classification of the staff providing a group session is described (para 5.5) |
| Professional advice and support | 27. Supportive contacts not forming part of a structured surveillance programme should be recorded under a professional advice and support programme (para 5.8) |

28. Post-natal care provided by midwives and health visitors should be classified as professional advice and support (para 5.10)
29. The age range or client group should be specified explicitly for each programme and the model information system applied as far as appropriate (para 5.11)
30. A minimum data set to be obtained about any contact where professional advice or support is the principal purpose is described (para 5.13)

PART II

CHAPTER 6 PATIENT CARE IN THE COMMUNITY

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| Patient care programmes | 31. Information about patient care services in the community should be collected under programmes corresponding to specified services (para 6.5) |
| Model information system | 32. The data about each programme should be associated with information about local policy and objectives, local authority and voluntary sector services, catchment population and expenditure (para 6.9) |
| Minimum data set for patient activity | <p>33. All face-to-face contacts should be recorded (para 6.13)</p> <p>34. If nurses from different staff groups are present during the visit or attendance, one contact should be recorded for each staff group (ie programme, as defined in Table II). Where more than one nurse of the same staff group is present, only one contact should be recorded for the relevant programme (para 6.14)</p> <p>35. All initial contacts should be recorded (para 6.16)</p> <p>36. All first contacts in the financial year should be recorded (para 6.17)</p> <p>37. The data to be recorded for all contacts, and those for initial contacts and first contacts in the financial year only, are listed — covering programme, location, age and sex of the patient and source of referral (para 6.20)</p> <p>38. A classification of location is described (para 6.21)</p> <p>39. A classification of the patient's age is described (para 6.22)</p> <p>40. A classification of source of referral is described (para 6.23)</p> |
| Patient-based computer system | <p>41. The minimum content of a computerised patient file is listed (para 6.25)</p> <p>42. A more detailed classification of source of referral is described for a computer-based system (para 6.26)</p> |

PART III

CHAPTER 7 INFORMATION FOR OPERATIONAL MANAGEMENT

43. The routine recording of the time taken by each contact should be explored as part of a computer-based patient administration/information system
(para 7.13)

CHAPTER 9 INFORMATION FOR DHSS

44. Certain principles are set out to guide decisions about the format in which the DHSS will obtain data about community health services
(para 9.3)

Composition of the Steering Group and Working Group D

1 The Steering Group

The following are or have been members of the Steering Group; former members are shown with an asterisk:

Mrs E Körner	Chairman
Mrs G Banks	Under Secretary, DHSS
Dr H Carson	District Medical Officer, Richmond, Twickenham & Roehampton DHA
*Mr D de Peyer	Under Secretary, DHSS
*Mr J Elkington	Consultant Surgeon, Arrowe Park Hospital, Wirral
*Dr J Evans	Deputy Chief Medical Officer, DHSS
*Mr M Fairey	Regional Administrator, North East Thames RHA
Mr G Greenwood	District Treasurer, Wirral DHA
Dr M Goldacre	Specialist in Community Medicine, Oxford RHA
*Dr G Guest	Regional Management Services Officer, Wessex RHA
Mr K Heron	District Administrator, Huntingdon DHA
Professor W Holland	Professor of Clinical Epidemiology & Social Medicine, St Thomas' Hospital Medical School, London
Dr A Jennings	Consultant Anaesthetist, Northampton General Hospital
Miss J Jones	Regional Nursing Officer, West Midlands RHA
*Mr R Jones	District Administrator, Frenchay DHA
*Dr R Lawrence	Area Treasurer, Wirral AHA
*Mr R Myall	Regional Treasurer, North West Thames RHA
Mr D Pace	Regional Treasurer, South West Thames RHA
*Mrs A Poole	Deputy Chief Nursing Officer, DHSS
*Dr R Rowe	Area Medical Officer, Dorset AHA
*Dr C Scurr	Consultant Anaesthetist, Westminster Hospital, London
Mr A Smith	Director of Statistics & Research, DHSS
Dr E Shore	Deputy Chief Medical Officer, DHSS
*Mr R Thatcher	Registrar-General, OPCS
*Dr J Todd	Area Medical Officer, Dudley AHA
*Dr W Turner	Regional Medical Officer, Yorkshire RHA
Dr D Wild	Regional Medical Officer, South West Thames RHA

Miss P Wright-Warren Deputy Chief Nursing Officer, DHSS

The Secretariat to the Steering Group has been provided by the following DHSS officers: former members are shown with an asterisk:

*Mrs G Booth
*Mr N Cockett
*Miss J Coker
Mr P Davies
*Mr M Dunning
*Mrs M Fry
*Mr C Hogan
Dr A Mason
Mr R Willmer

2 Working Group D

The following were members of this group; the job titles refer to the posts held when the work was in progress:

Miss A Addy	Area Nurse Child/School Health, Derby AHA
Dr K Dalzell	Senior Clinical Medical Officer, Clywd DHA
Mr P Davies	Steering Group Secretariat
Miss S Earl	Nursing Officer, DHSS
Dr B Ely	Senior Medical Officer, DHSS
Mr R Hillman	District Treasurer, Southmead DHA
Mr C Hogan	Steering Group Secretariat
Professor W Holland	Professor of Clinical Epidemiology and Social Medicine, St Thomas' Hospital Medical School, London
Miss D Horridge	Divisional Nursing Officer, East Surrey DHA
Miss J Jones	Regional Nursing Officer, West Midlands RHA (Chairman from February 1982)
Mr R McNay	Regional Statistician, Northern RHA
Mr M J Rigby	Regional Service Planning Officer, Mersey RHA
Dr R Rowe	Area Medical Officer, Dorset AHA (Chairman until February 1982)
Mr J Rowntree	Chief Statistician, DHSS
Dr E Scrivens	Lecturer in Social Administration, St Thomas' Hospital Medical School, London
Mr W Stovell	Area Information Officer, Kent AHA
Dr P Tiplady	Specialist in Community Medicine, East Cumbria DHA (Vice-Chairman)
Dr C Waine	General Medical Practitioner, Bishop Auckland
Miss X Webster	District Nursing Officer, Gateshead DHA
Mr P Whitfield	District Administrator, Blackburn, Hyndburn and Ribble Valley DHA
Dr P Whitfield	Specialist in Community Medicine, Hampshire AHA

Steering Group Reports

A REPORTS TO THE SECRETARY OF STATE

These contain recommendations about the data content of NHS information systems.

Reports are available from Her Majesty's Stationery Office, 49 High Holborn, London WC1V 6HB.

1. The First Report; the collection and use of information about hospital clinical activity.
Published in 1982, price £6.25.
2. The Second Report; the collection and use of information about patient transport services.
Published in 1984, price £2.25.
3. The Third Report; the collection and use of information about health services manpower.
Published in 1984, price £2.75.
4. The Fourth Report; the collection and use of information about activity in hospitals and the community.
Published in 1984, price £3.00.
5. The Fifth Report; the collection and use of information about services for and in the community (this Report).
6. The Sixth Report; the collection and use of information about health services finance (published with this Report).

B OCCASIONAL PAPERS

These contain proposals for improving the environment in which data are collected and information is used. Papers are available from the King's Fund Centre, 126 Albert Street, London NW1 7NF, all priced £1.

1. "Converting data into information"; the management arrangements for collecting valid clinical data and setting up a district information service.
Published in 1982.
2. "Introducing IT in the district office"; a study carried out in one health district.
Published in 1983.
3. "Developing a district IT policy"; the development of a district policy for the introduction of IT with particular emphasis on the implementation of computerised departmental systems.
Published in 1983.

4. "Piloting Körner"; the views of administrators who piloted the Körner data sets.
Published in 1984.
5. "Making data credible"; the setting, achieving and monitoring of data standards with particular emphasis on standards for clinical activity data.
Published in 1984.

C IN PREPARATION

Report of the Steering Group's Working Group on Confidentiality

A Categorisation of Activities with Patients Clients*

a. Technical tests, assessments:

i. taking samples and measurements:

cervical smear,
taking swabs; blood, urine, faeces sample,
pregnancy testing,
skin testing,
measurement of weight, height, temperature, pulse,
respiration,
blood pressure,
ECG,
vision test, audiometry, hearing test,
child development observation,
health surveillance,

ii. examinations:

breast palpation, examination,
ante or post-natal examination,
head inspection.

b. Technical procedures:

i. injections, syringeing and related procedures:

injection,
vaccination, immunisation,
eye/ear treatment, including syringeing,
enema, rectal suppository, washout, manual removal,
vaginal suppository, pessary, douche,
catheterisation, bladder washout,
stoma care,

ii. sutures, dressings and related procedures:

inserting/removing stitches,
plaster of Paris,
cervical collar,
dressings, care of pressure sores,

iii. home delivery, minor operations:

home delivery,
family planning procedures,
minor operations.

*See paragraphs 7.10 and 7.11

- c. Other nursing care:
 - i. general nursing care:
 - routine nursing care, bathing, prevention of incontinence, pressure sores, rehabilitation exercises,
 - ii. Other personal care:
 - helping with lavatory, commode, bed pan, helping with washing, dressing, nappy changing, caring for hair, nails, feet, feeding or giving medicine,
 - iii. Social help:
 - preparing food and drinks, housework, washing clothes, dishes etc., shopping, collecting pension, benefits, prescriptions,
 - iv. supervision of patient/client,
 - v. home assessment, delivery of aids and equipment and instruction in their use:
 - assessment visits for home conditions, social circumstances, needs for equipment, etc., delivering and instructing in use of aids and equipment,
 - vi. other clinical work,
- d. Provision of advice, support and education:
 - i. advice, support and education in relation to health:
 - pregnancy, labour, family planning, vasectomy, sterilization, abortion, child development and management, nutritional advice, including infant feeding, alcoholism and drug abuse (including solvents), physical health problems, mental health problems,
 - ii. advice, support and education in relation to social problems:
 - advice on social, educational, financial, legal, employment, and housing problems and associated services.

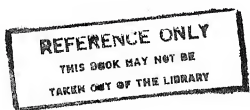
Source: Nurses working in the community: OPCS Social Survey Division: a Survey carried out on behalf of the DHSS in England and Wales in 1980. HMSO 1982.

National Health Service
Department of Health and Social Security

Steering Group on
Health Services Information

Chairman: Mrs E Körner

A report on the collection and use of financial information
in the National Health Service



London Her Majesty's Stationery Office



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Preface

"... we live in a country where happily it is free to all men to urge their particular claims, so the right . . . course is, that these claims should be brought into the face of day . . . in order that—whether we act, or whether we refuse to act—we may do so under the cognizance of our countrymen and under the circumstances and conditions of free discussion and of perfect publicity, which carries with it the assurance of fair play."

W E Gladstone, Budget Speech, April 1862

The management of the NHS must at all times be able to demonstrate that the very large amount of public expenditure devoted to health care is properly spent, that funds are prudently allocated, expenditure strictly controlled, performance critically examined and competing claims for resources judiciously assessed.

In this, the sixth in a series of Reports, we present our conclusions and recommendations about financial information required to discharge these tasks. The information we propose will aid policy makers and those who negotiate and allocate funds to regions and districts; it will also enhance the accountability and review processes. But, above all—and this has been our overriding concern throughout—it will assist managers and decision makers at the level where the money is actually being spent: the district, the unit, the individual department and the clinician.

The recommendations of the Report cannot, of course, be considered or implemented in isolation. Improvements in financial information can only be achieved through better knowledge of where resources, particularly staff, are deployed, and of the activities to which they are devoted. Meaningful unit costs can only be produced when accurate and relevant data about activity, manpower and expenditure are drawn together.

There is a growing awareness, at all levels of management, of the need for reliable and timely financial information, and we have been greatly encouraged by the degree of support for our proposals in the course of consultation about our Interim Report and by the general desire to move forward: debate has centred on how far and how fast rather than on whether we should progress.

We are indebted to the Chairmen and members of Working Group F (listed at Annex I) for effort and time freely given at a time when many urgent problems competed for their attention. We also express our thanks to those many others, both in the NHS and the DHSS, who advised us during our deliberations or provided detailed responses to our consultation. We are particularly grateful to the members of the Financial Accounting Sub-Group of the Association of Health Service Treasurers Accounting Committee for readily undertaking the detailed work recommended in our Interim Report.

Thanks also go to Mr F. Brewis who acted as secretary to the Working Group in the initial stages, and to his successor, Mr R. K. Willmer, whose energy and painstaking attention to detail greatly assisted us in bringing the work to a speedy conclusion.

Edith Körner
Chairman,
NHS/DHSS Health Services
Information Steering Group

1 Introduction to the Report

General approach

1.1 The proposals made in this Report accord with the approach and principles outlined in Chapters 1 and 2 of our First Report and which may be summarised as follows:

- a. we propose the routine collection of a series of minimum data sets to provide, at reasonable cost, the basic information without which authorities and their officers will not be adequately informed when fulfilling their responsibilities;
- b. we concentrate on identifying the information needs of the district health authority and its officers on the assumption that information not required for operational and for the district's own purposes will not normally be required regionally or nationally;
- c. the reliability and timeliness of data improve if they are collected as a by-product of operational procedures.

1.2 We are conscious of the fact that, particularly in the sphere of financial information, many of the data required by district and unit management are dependent on local budgetary and organisational arrangements. However, financial analyses structured in a common national format are important tools which allow local management critically to compare the costs of services within their district, with similar districts and with national figures; such analyses also provide higher management tiers with the information they require. We believe that our proposals strike the right balance between the need for local freedom and for national prescription.

Scope of the Report

1.3 We recommend minimum sets of financial data for the following:

- a. hospital services;
- b. community health services;
- c. patient transport services;
- d. HQ administration;
- e. blood transfusion services;
- f. joint finance;
- g. community health councils;
- h. other services.

1.4 Our recommendations are concerned with the information requirements for the management of these services, and the degree of detail we discuss for each is commensurate with the financial resources consumed. The management activities which we have specifically considered are:

- a. **Planning**, both strategic and annual, to determine the priorities for health care within the resources expected to be available, and for the comparison of costed options;
- b. **Budget Setting, Monitoring and Control** to provide a mechanism by

which detailed expenditure patterns are determined and channelled in the directions planned, and monitored to give early warning of divergence from targets;

- c. **Evaluation, Performance Review and Management Audit** to probe performance standards and the value for money achieved by services. These reviews may highlight the need for corrective action and so affect planning and budget setting;
- d. **Financial Accounting and Financial Audit** to account for all monies.

One of our chief preoccupations in support of these activities has been to establish robust links between the main information systems of the NHS. The proposals of this Report are based throughout on classifications and definitions consistent with those used in our Reports on patient activity and manpower, and are designed to provide aggregate costs which are more homogeneous and more meaningful than existing classifications.

1.5 An important aspect of financial information is to produce, and allow comparisons of, unit costs by drawing together costs of **inputs** (such as manpower, goods and services) and **outputs** (different types of health care activity or products of service departments, eg laundry or catering). This focuses attention on the production efficiency of different processes of the health care system.

1.6 Informed judgement about performance will also be concerned with comparing costs of inputs with different **outcomes** of treatments and strategies in order to gauge the effectiveness with which resources are deployed and used.

1.7 It must always be borne in mind that, while financial data and well structured financial analyses are an essential tool of management, they are but one component informing decisions about choices, options and strategies: qualitative judgements about standards of care as well as demographic and epidemiological data also play an important part in such decisions.

Structure of the Report

1.8 In the remainder of this Chapter we discuss in broad terms the nature of financial information. Chapter 2 contains our detailed proposals for the minimum data sets, while in Chapter 3 we recommend the information which should be available nationally. A summary of our recommendations is at the end of Chapter 3.

The nature of financial information

1.9 In simple terms, we may say that NHS expenditure is accounted for as and when it is incurred and that codes are attached to every item of expenditure. These codes are the building bricks of financial information; their composition and complexity determine their adaptability for different analyses. There are many ways of aggregating expenditure by using different parts of the codes for a variety of local and national purposes.

1.10 The facility provided by the coding of individual items of expenditure which enables the construction of the financial analyses described in the following paragraphs, may be likened to a Rubik cube in which the smaller cubes (the individual items of expenditure) can be turned and combined so that they compose different aspects of the large cube (total expenditure). Even though the concepts underlying this manipulation are simple, their

successful application in practice depends on the robustness of the codes, and the credibility of the resulting analyses hinges on the correct attribution and recording of codes.

1.11 The financial analyses required to plan and manage the provision and delivery of health services must answer the questions:

- a. **What** is the money spent on?
- b. **Who** spends the money?
- c. **Where** is the money spent?
- d. **Why** is it spent?

1.12 The answer to the first question is an analysis describing **what** is bought (expenditure on salaries, drugs, fuel, etc) and is commonly referred to as a **subjective** analysis. It covers both capital expenditure (on buildings, equipment, etc) and the revenue (recurring) expenditure required to run the service.

1.13 The question '**who** spends the money' is answered by a **budgetary** analysis which shows all the expenditure incurred by each budget holder within the area of spending for which he/she is responsible.

1.14 The answer to the third question '**where** is the money spent' is an analysis **by location** (eg region, district, hospital site, clinic).

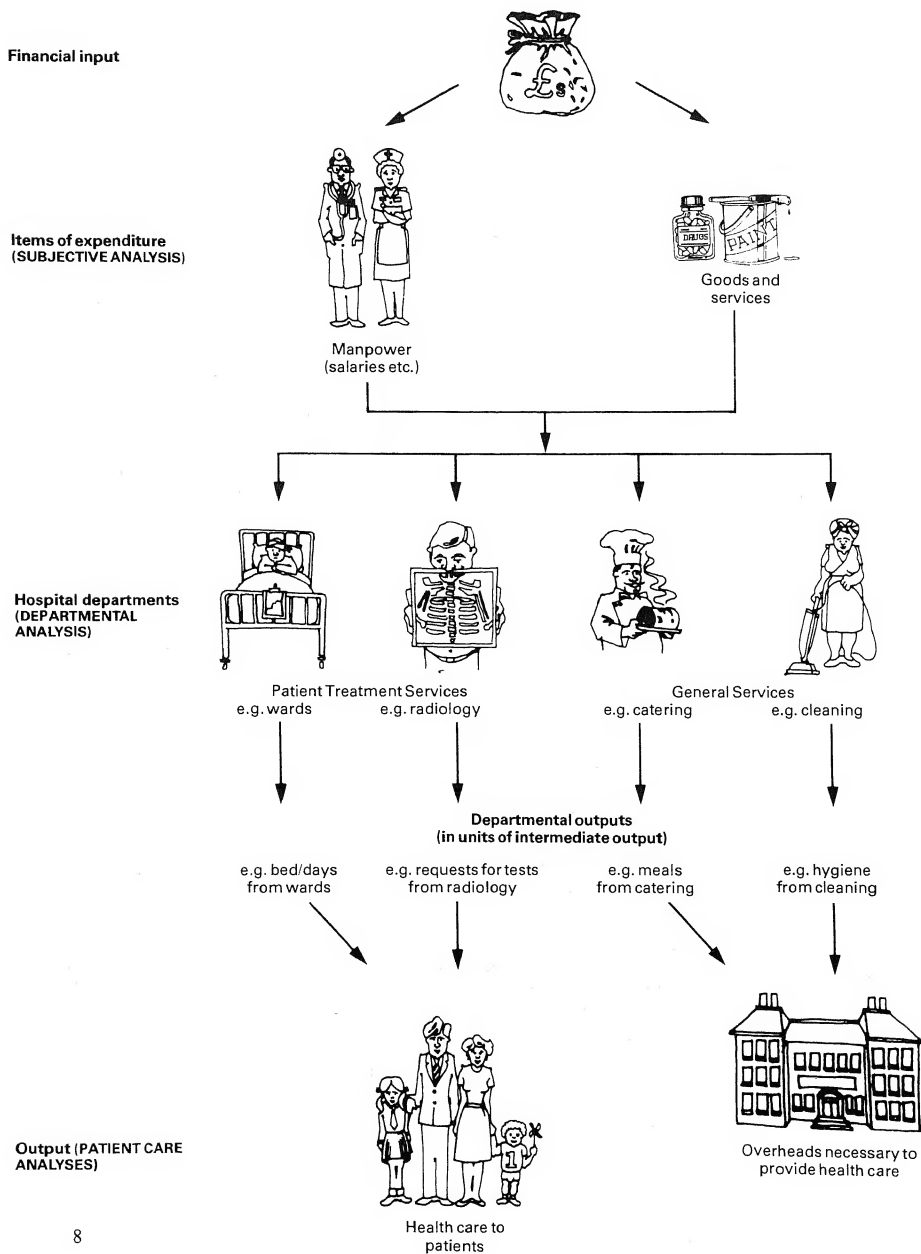
1.15 The final question asks '**why**' in the sense of 'for what purpose' is the money spent. Since purposes or objectives may be viewed in a variety of ways, there is no single answer to this question. Thus individual departments (eg radiology, laundry, transport) have specific production objectives. The expenditure incurred in pursuit of these is available in what has traditionally been called 'a primary functional analysis' but which we propose to call a **departmental** analysis, because we believe that this name better describes what is intended.

1.16 The objectives of these individual departments, however, may be considered as intermediate to the final objective of providing health care for patients. In answering the question 'why is the money spent', therefore, we also require **patient care** analyses which distribute expenditure over groups of patients with common characteristics.

1.17 In the remainder of this Report we focus on the four questions set out in paragraph 1.11, with particular emphasis on the question 'why is the money spent?' which requires the costing of outputs. Figure 1 at the end of this Chapter depicts the way we examine how money is used day by day in the hospital services and how this is related to the terms "subjective", "departmental" and "patient care" analyses. Community, patient transport and other services can be schematically represented in a similar way.

Figure 1

How money is used in a hospital day by day



2 The minimum data sets

Introduction

2.1 In this chapter we examine information needs of the authorities charged with the day-to-day management of the services. In most cases these are district health authorities, but where services are managed by higher authorities our recommendations apply to them equally.

2.2 We have structured our recommendations according to the questions in paragraph 1.11. These are:

- a. **Subjective Analysis** (in answer to 'what is the money spent on?');
- b. **Budgetary Analysis** (in answer to 'who spends the money?');
- c. **Location Analysis** (in answer to 'where is the money spent?');
- d. **Departmental and Patient Care (Output) Analyses** (in answer to 'why is the money spent?').

The definitions and classifications of the data items of the minimum data sets for the subjective and budgetary analyses are the same for:

—all services.

The definitions and classifications of the data items of the minimum data sets for the location, departmental and patient care analyses relate closely to individual services, ie:

- hospital services;
- community health services;
- patient transport services;
- HQ administration;
- blood transfusion services;
- joint finance;
- community health councils;
- other services (for example, mass radiography, emergency bed service).

The presentation therefore follows these distinctions, but for hospital and community health services the patient care analyses are reviewed together for reasons discussed below in paragraph 2.4.

2.3 We discuss revenue expenditure for each service, and conclude with a separate section on capital expenditure.

2.4 With health care being delivered in an increasing number of ways in different locations, it is impossible to define precisely 'hospital services' and 'community health services' in a way which allows for all circumstances. We have set out definitions below which are required for splitting expenditure by location and for the departmental analyses, but for our proposed patient care analyses relevant expenditure is aggregated irrespective of where services are provided. Locally it will be possible to combine the minimum data sets in different ways to examine particular circumstances.

2.5 **Hospital premises** are defined as all NHS managed premises which contain at least one bed routinely used by patients overnight. The **hospital services statement** will include expenditure on patients using the following facilities when they are situated on hospital premises:

- a. wards;
- b. out-patient clinics;
- c. day care facilities;
- d. accident and emergency departments;
- e. radiotherapy departments,

together with all patient treatment and general services which support 'a' to 'e'. The **community health services statement** will include all expenditure on patient treatment services other than that which is included in the hospital services statement, together with any supporting general services.

FOR ALL SERVICES

Subjective analysis

2.6 For effective planning, budgeting and monitoring of expenditure, districts require detailed information describing what is bought (salaries, drugs, fuel, etc). Current systems already collect and hold such information in forms which relate to local management arrangements. The degree of detail required varies between authorities and a national minimum data set should therefore only be described in broad terms so that maximum local flexibility is maintained.

2.7 The information collected nationally at present is in the "Uniform Subjective Analysis of Expenditure" which is submitted each year to the DHSS by every authority as part of its annual accounts. This information is primarily used for national pay negotiations and for calculating price indices which are of use both locally and nationally: it is also used for many ad-hoc purposes.

2.8 We are content with the general structure of the Uniform Subjective Analysis of Expenditure and therefore **recommend** that, subject to a number of minor amendments, this be the minimum data set for all authorities (see Annex II). Each authority will wish to build on this minimum for its own purposes. We further **recommend** that this analysis be reviewed regularly to ensure the headings used are kept up to date. When the manpower systems proposed in our Third Report have been fully implemented, they will provide cost data which may allow simplification of some sections of the analysis.

Budgetary analysis

2.9 The budgetary process is a crucial aspect of financial management which involves the active participation of managers of all disciplines and of finance staff. It is not only the cornerstone of financial control, but also the means of linking resource usage with work targets within the field of each budget holder's responsibility, and of planning and evaluating the relationship between them. Negotiations for prospective budgets should be conducted by conscious reference to planned workloads rather than merely to the volume level of resources budgeted in the current year. They provide an opportunity actively to search for economies and redeployment of resources and critically to examine the cost of services.

2.10 Budget holders may either be directly accountable for the costs of the services they provide or may, as it were, 'buy' some services from other budget holders. Clinicians as budget holders usually fall into the second category as their expenditure is, to some extent, dependent on the costs of services provided to them by different departments. Good liaison, mediated by finance staff, between clinicians and their 'suppliers', focuses attention on the way services are delivered and creates incentives for making savings.

2.11 The DHSS has issued general guidance on budgetary structures and on the importance of good budgetary practice at unit level. To allow budget holders to exercise control within their delegated budgets and to allow monitoring of spending during the year so that corrective action can be taken, regular, well presented and timely financial reports which compare actual with target performance are essential. However, the responsibility of designating budget holders, of negotiating with them the size and nature of their workload and the operational budgets for which they are accountable and of monitoring them, rests with district management and arrangements reflect local operational and organisational arrangements. To lay down a minimum data set for budgetary reports militates against the necessary local flexibility and we therefore confine ourselves to **commending** the following 'code of practice'.

Code of Practice for Budgetary Control

A. All items of expenditure and income should be the responsibility of nominated budget holders (including clinical budget holders where appropriate).

B. A comprehensive budget manual should be available for budget holders, and in particular the powers and responsibilities of budget holders should be well defined (eg powers of virement¹ should be explicit and well understood).

C. Budgets should be set by negotiation and agreement of budgeted activity as well as budgeted expenditure. Within each budget, therefore, expenditure should be clearly linked to the expected workload within the budget holder's area of responsibility, which in turn should be consistent with, and stem from, district operational plans.

D. It is considered good practice that budget holders should be as far down the management structure as is effective given local management arrangements. This has the following benefits:

- i. it involves more staff in the financial management process;
- ii. it places the management of finance close to where decisions on health care are taken;
- iii. it allows more discrete areas of work to be costed;
- iv. it provides better information for costing patient care services.

E. The budgetary system should be regarded as a discipline rather than a strait-jacket. There should be room for flexibility both within and between budgets, with those producing savings from good management being allowed to benefit.

F. Budgetary control systems should produce timely reports to meet a budget holder's information needs. The information may include:

- i. total budget for the financial year;
- ii. budget and actual expenditure/income for the latest month;
- iii. budget and actual expenditure/income for the financial year to date;
- iv. difference between budget and actual expenditure in iii;
- v. budgeted and actual levels of activity (workload);
- vi. budgeted and actual worked hours by grade in whole-time equivalents;
- vii. other major items relevant to the particular budget holder eg bonus/on call/overtime payments.

All reports should analyse budgets by an appropriate breakdown. Summarised statements of the form described above should be available to managers who oversee a number of budgets. Regular budget monitoring meetings should be held so that where necessary timely corrective action can be agreed and taken. Reports should be timely, and available to budget holders as soon as possible, and not later than 14 days after the end of the month.

G. There should be firm links (via nominated members of staff) between treasurers' departments and budget holders.

¹transfers between budget headings.

FOR HOSPITAL SERVICES

Location analysis

2.12 For hospital services we **recommend** that information be available by individual 'hospital site' (as defined in paragraph 9.17 of our First Report on patient activity) and that for costing purposes there should be a national coding structure indicating:

- a. region;
- b. district;
- c. site;
- d. classification of site as follows;
 - i. District General Hospital (DGH),
 - ii. Part of a split-site DGH,
 - iii. Site supportive of a DGH,
 - iv. Single purpose site,
 - v. Other site.

Departmental analysis

2.13 The departmental analysis is required locally for two purposes:

- a. to assess, against a measure of the workload of each department, the unit cost of the services produced, for planning and performance evaluation;
- b. to provide a link to costing patient care, of which each department's service is a constituent part.

2.14 The present national "Uniform Analysis of Expenditure" is produced by each authority using guidelines issued by DHSS in its 'Manual for Accounts'. The main criticisms of the analysis include:

- a. medical, nursing and administrative costs are not uniformly attributed to departments;
- b. there is a mixture of subjective costs (eg medical and nursing salaries) and departmental expenditure (eg catering, diagnostic departments);
- c. work-units in national costing returns relate to numbers of patients treated rather than to the outputs of individual departments.

2.15 We **recommend** that the departmental analysis of expenditure be amended to the data set in Annex III. The principal changes are in the first part of the analysis where the costs of the different facilities (wards, out-patient clinics, etc) have been identified, not only as management information in their own right, but also to assist in costing patient care services.

2.16 We further **recommend** that the items of expenditure to be included within each heading be amended to provide a more accurate assessment of the cost of running each department. Following the publication of our Interim Report, the Financial Accounting Sub-Group of the Association of Health Service Treasurers' Accounting Committee has examined this recommendation and made detailed proposals by which expenditure should be allocated to the headings in Annex III. These proposals (together with those for other services) are in Annex IV. This recommendation will require a revision of the 'Manual for Accounts'.

2.17 We also **recommend**:

- a. that the departmental analysis for each site should show, first, the expenditure on departments situated on the site (even if they provide

services for patients on other sites, or in the community) and, secondly, the expenditure on the patients actually on the site, including work done elsewhere for patients on the site but excluding work for patients elsewhere;

- b. that for each department work-units be developed associated with the output of that particular department. While our other Reports have identified work measures for specific areas, these largely relate to 'patient events' and do not necessarily reflect resource consumption in terms of content or duration of consultation. We urge that further work be undertaken to establish more responsive measures, although we do not underestimate the difficulty involved in producing nationally applicable and agreed measures for some departments.

FOR COMMUNITY HEALTH SERVICES

Location analysis

2.18 For the community health services the organisation for delivering health care is such that expenditure by location is of less importance than for hospital services and is therefore not included as part of our minimum data set. Authorities may, however, wish to examine some general service costs in the departmental analysis (see paragraph 2.20 below) by individual health centres and clinics as appropriate.

Departmental analysis

2.19 A departmental analysis of community health services expenditure is required locally:

- a. to identify separately expenditure on patient treatment services and general services (overheads);
- b. to group together items of expenditure which will require subsequent apportionment for costing the services provided.

2.20 The main criticism of the present analysis in connection with 'b.' is that it fails to identify separately the expenditure associated with the different categories of community nurse and to group their salaries and travelling expenses. We therefore **recommend** that nursing staff services be sub-divided and that the minimum data set be as in Annex V. The analysis also divides administration into two headings so that the administrative staff involved with particular health care programmes (health programme support staff, item A.f. in Annex V) may be separately identified from those in general administration.

FOR HOSPITAL AND COMMUNITY HEALTH SERVICES

Patient care analyses

2.21 Districts are charged with the planning, management and delivery of health services to defined populations within a cash limited allocation, and in accordance with national and regional policies and guidelines. The planning process involves regular reviews of the levels of services and assessment of the effects on resources of changes in those levels or the ways in which services are delivered. For such work districts should have available information on the costs of different services and in particular on those delivered to different groups of patients. Such analyses also yield useful information on how changes in levels of service affect the workload and expenditure of different budget holders, as well as providing a basis for setting clinical budgets. Patient care analyses in a common national format additionally allow district management to examine whether services are delivered efficiently and whether good value for money is obtained.

2.22 There is at present, in the majority of districts, no routinely available information on the cost of treating different groups of patients, and no nationally available returns except by type/size of hospital.

2.23 *We believe that the absence of a uniform, generally available cost analysis of different kinds of patient care in hospital and community services by patient group characteristics (eg age, diagnosis, specialty) severely limits the ability of districts to manage, and adversely affects planning, monitoring and performance evaluation at all levels.*

2.24 Methods of producing cost information for various purposes have been tested both in this and other countries and can briefly be described as follows:

- a. **Patient Costing** produces a cost for the treatment of every patient;
- b. **Diagnostic Group Costing** produces the average cost of treating patients suffering from the same disease, or, more usually, from a disease falling within a defined diagnostic category;
- c. **Clinical Team Costing** identifies the average cost of treating patients being looked after by a particular clinician or clinical team;
- d. **Specialty Costing** produces the average cost of treating patients within a specialty or group of specialties;
- e. **Client Group Costing** identifies the average cost of treating certain patient groups of interest (eg children, elderly, mentally handicapped, mentally ill).

2.25 Of these approaches, patient costing is the most difficult and costly to develop but, once available, allows maximum flexibility in that information may be aggregated by any characteristic or combination of characteristics held on patients' records. Diagnostic group costing requires a high degree of apportionment and is still relatively costly to develop. Costing by client group uses categories which are not exclusive and fails to break down acute services into sufficient detail. Clinical team costing is a refinement of specialty costing.

2.26 Specialty costing, achieved through direct allocation and apportionment of costs, commends itself as a method which could provide substantial improvement at moderate cost. It has been field tested in a variety of situations and is of proven benefit. A wide section of NHS management is familiar with its underlying concepts and intentions. While it may be criticised for failing to take sufficient account of 'case-mix' (in terms of condition, complexity and severity) it takes significantly greater account of it than existing cost information.

2.27 *We therefore recommend that specialty costing be introduced.*

2.28 Some two-thirds of districts which responded to our Interim Report believe this to be the right recommendation at the present time, either in its own right or as a first step towards more detailed costing. About 25% of districts, as well as many RHAs and Accounting Groups, specify their ultimate aim as patient costing: some consider specialty costing to be too broad an aggregation.

2.29 We do not believe that development of patient costing has yet reached a stage where the benefits derived can be assessed against the resources required to implement the necessary systems. However, we **recommend** that there be

continued examination of such systems, not only in terms of their design, but also to measure their usefulness to managers. We would encourage authorities who wish to experiment with other systems more refined than specialty costing, including patient costing, to do so, provided the minimum core recommended in this Report is produced.

Specialty costing

2.30 Specialty costs will be produced locally by distributing the expenditure for each department in the departmental analysis across specialties, either by direct allocation (for example for medical staff or single specialty wards) or by apportionment using appropriate work-load measures. The exact method will depend on local circumstances, but we **recommend** that for consistency the following be adopted:

- a. the definition of specialty should be as recommended for patient activity in our First Report (paragraph 5.21a, the designation on the consultant's contract);
- b. authorities should collect information on the 20 or so specialty groupings in Annex VI (although many districts and regions may wish to cover more than this minimum in some specialties). Also in Annex VI are supra-district and supra-regional services (each of which is a sub-set of one or more specialties) for which separate information should be collected;
- c. for inter-district and national comparisons, specialty costs should include all and only the expenditure in section A (patient treatment services) of the departmental analysis in Annex III, although for other purposes districts may wish to include additional expenditure as appropriate;
- d. the specialty costs should identify separately expenditure on the broad patient groups using the different facilities defined in our First Report. These are (with paragraph references to the definitions in the First Report in brackets):
 - i. patients using a hospital bed (including day case admissions) (3.12);
 - ii. out-patient attenders (whether clinics are held on or off hospital premises) (3.13);
 - iii. day care patients (whether facilities are on or off hospital premises) (13.3);
 - iv. accident and emergency attenders (14.3);
- e. to apportion the expenditure on diagnostic and paramedical services to the above patient groups, costs should be attributed to the group appropriate at the time of ordering treatment, except when treatment is ordered in an out-patient clinic specifically for when the patient is subsequently admitted to "use a hospital bed";
- f. when day care facilities are used by patients concurrently using a hospital bed, expenditure should be included with "patients using a hospital bed" (using activity statistics recommended in paragraph 13.10 of our First Report);
- g. information should be available by individual sites.

2.31 The information required to produce specialty costs identifies where, and to what end, resources are being used in a hospital. It is compatible with, and can provide a transition to, clinical costing and clinical budgeting. For both these more detailed information (by individual clinical team or consultant) is required and, for clinical budgeting, prospective information and in-year monitoring are also necessary. It is essential that districts moving towards

clinical costs and budgets should implement specialty costing with constant regard to the next stage of development.

2.32 Where client group costs are required for strategic purposes, our recommendations about specialty costs, together with those about patient activity information, will allow interested districts to produce improved information.

2.33 The resources required to implement specialty costing will vary significantly between authorities. The districts which undertook specialty costing trials were each given £18,000 over 2 years to cover one hospital; this level of funding was considered adequate, and several are now absorbing the necessary procedures into their routine work at little extra cost.

Programme costing

2.34 Specialty costs will include expenditure on services to the patient groups identified in paragraph 2.30d above. For remaining hospital and community health services, we **recommend** an analysis of costs by the programmes described in our Fifth Report on the community health services. The structure of these services is reproduced in Annex VII which also lists other services for which expenditure should be separately identified. For inter-district and national comparisons, programme costs should include all and only the expenditure in section A of the departmental analysis (Annex V). The specialty and programme costs do not accord precisely with the respective definitions of hospital and community health services in paragraph 2.5 above as some services, which may be provided either on or off hospital premises, are considered in total, irrespective of the location.

FOR PATIENT TRANSPORT SERVICES

2.35 For patient transport services we propose minimum data sets for:

- a. the departmental analysis; and
- b. cost of services.

Departmental analysis

2.36 We **recommend** that the present departmental analysis (Annex VIII) be maintained (although the analysis will require an extra breakdown to comply with the recommendation in paragraph 2.37 below). We further **recommend** that the expenditure on general services (section C in Annex VIII) be available by individual ambulance stations.

Cost of Services

2.37 The basic financial measures identified in paragraph 3.3 of our Second Report (on Patient Transport Services) are:

- a. cost per patient journey;
- b. cost per vehicle mile.

There is also increasing interest in identifying the costs of different services, and we **recommend** that a breakdown of expenditure on operational services (section B in Annex VIII) between 'emergency' and 'non-emergency' services should also be available. This proposal requires further work, and the final breakdown achieved should be consistent with the categories of journeys identified in paragraph 2.4 of our Second Report.

2.38 We also believe that some authorities will wish to analyse the non-emergency expenditure into the following patient categories:

- a. for admission, discharge or transfer;
- b. to attend out-patient clinics;
- c. to attend for remedial treatment (physiotherapy, radiotherapy, etc);
- d. to attend a day care facility (but not day surgery patients).

FOR HQ ADMINISTRATION (DISTRICT AND REGION)

2.39 We **recommend** that the administration expenditure be analysed by departments as set out in the national accounts (see Annex IX).

FOR BLOOD TRANSFUSION SERVICES

2.40 At present regional health authorities are responsible for providing and accounting for blood transfusion services. The only financial information available about these services relates to the production process (ie collection and distribution). No information is available about consumption by individual districts and specialties because these services are not charged out. We **recommend** that blood and blood product supplies be a charge on districts and be included in specialty costs.

2.41 The Blood Transfusion Advisory Committee is developing methods to identify the costs of processing individual blood products; this will assist in determining the charges to be levied, including those to the private sector.

2.42 We **recommend** that the production cost of the blood transfusion service be analysed by:

- a. **location:** where the service in a region is provided on more than one site;
- b. **department:** using the present analysis which details expenditure by:
 1. Blood transfusion service;
 - i. blood collection;
 - ii. blood distribution;
 - iii. laboratory services.
 2. General services (headings as for hospital services).
- c. **cost of products:** using, for the present, the measures in the existing cost returns (cost per 1000 population, cost per 100 units collected, cost per 100 units distributed).

2.43 We further **recommend** that the charge on districts for blood and blood product supplies be included in the hospital services departmental accounts (Annex III, section A, department s.v.); and also that they be included in specialty costs.

FOR JOINT FINANCE (Revenue and capital expenditure)

2.44 The information requirements for projects jointly financed with local authorities have recently been reviewed jointly by the NHS and DHSS, and our recommendations take note of the findings. We **recommend** the minimum data set for each project be:

a. **details of the project:**

- i. services to benefit (whether personal social services/primary or community health/other health services);
- ii. type of project (eg residential home);
- iii. financial arrangements (whether with local authority, health authority or voluntary body);
- iv. client group(s) to benefit;
- v. number of patients to be catered for;
- vi. purpose of project (addition to service provision, improving existing provision or maintaining an existing service);
- vii. number of patients transferred from hospital to community care;

b. **details of the expenditure** (by project);

- i. amount of expenditure;
- ii. nature of expenditure (revenue or capital);
- iii. proportion of NHS funding;
- iv. ¹timescale and 'tapering' arrangements for expenditure;
- v. ¹for future financial years, committed payments and estimated payments.

Note ¹For planning—only necessary at the start of a project.

**FOR COMMUNITY
HEALTH COUNCILS**

2.45 For each council we **recommend** that expenditure should be analysed, as at present, by:

- a. secretariat,
- b. office services and expenses,
- c. accommodation, overheads and other services,
- d. members' expenses,
- e. other services.

FOR OTHER SERVICES

2.46 The requirements for information on other services will depend largely on local needs, but we **recommend** the following:

- a. for mass radiography: expenditure by service and cost per screening;
- b. for contractual hospitals and homes: a specialty indicator, expenditure by site and cost per patient day (costs by specialty will not be included in the specialty analysis as they will be on different bases);
- c. for staff residences/houses: all direct expenditure on staff residences and houses, as well as relevant general services expenditure, together with charges to occupants of the accommodation to be treated as credits;
- d. for research and development: cost of each project;
- e. for other (specified) services: expenditure only.

FOR CAPITAL Equipment

2.47 The rapid and accelerating changes in technology and electronics have cut, and may continue to reduce, the life expectation of medical, dental and computer equipment; we believe, therefore, that authorities require, for budgetary purposes, financial information about the value and depreciation of all such items costing (at current value) £7,500 or more.

Vehicles

2.48 Substantial capital sums are spent buying new vehicles. Authorities should therefore have available detailed information on the value and depreciation of the existing vehicle stock, together with the maintenance and repair patterns and costs so that optimum purchasing and maintenance policies may be determined.

Buildings

2.49 The size, quality and disposition of buildings play an important part in the planning and delivery of health services. The absence of information on the value of buildings, and the failure to include it in service plans, tend to distort service provision and militate against good management practice. Health authorities should have available information on the value and depreciation of their building stock.

General

2.50 We note the current review of asset and capital accounting by the Association of Health Service Treasurers. The development of information about capital depends on agreement being reached on methods of classifying and valuing NHS capital and we hope that this work will result in establishing definitions, classifications and minimum data sets for different categories of capital.

2.51 For the present, however, we **recommend** that the subjective analysis of capital expenditure be brought more in line with the revenue analysis in Annex II, and our revised proposal is in Annex X. Also in this Annex is the departmental analysis of capital which should remain as at present, but be reviewed once the proposals of the AHST group are available.

3 Nationally available financial information

3.1 Financial information available in a comparable format across the country allows individual authorities (districts and regions) to compare their expenditure and unit costs with other authorities and with national averages. In addition it provides DHSS with the information it requires to fulfil its responsibilities to Parliament and ministers, and supports work on resource allocation and the negotiations to obtain the global funds to maintain and develop the health services. Such information also plays an important role in the annual review system and in formulating performance indicators.

3.2 At present authorities submit to DHSS:

- a. limited cash returns — known as statements 1-4 — by 31 May;
- b. annual accounts by 30 June;
- c. detailed cost returns by 31 August.

The timetable is in order to meet Departmental deadlines for presentation of the Appropriation and Summarised Accounts to Parliament. This arrangement results not only in the duplication of some information, but also in national cost statements being significantly out of date by the time they are produced.

3.3 We **recommend** that in future the following be submitted:

- a. statements 1-4 by 31 May as at present, subject to any Parliamentary pressure for an earlier submission;
- b. information for all the health services presently in the annual accounts and cost returns to be submitted in one set of 'management accounts' by the end of June each year. The information to include:
 - i. a subjective analysis (Annex II) by district (as at present);
 - ii. a departmental analysis for hospital services (Annex III) by individual sites together with unit costs using workload measures appropriate to each department, and showing expenditure both before and after 'charging out' to other sites and services (Annex XI is a suggested format for this analysis);
 - iii. a departmental analysis for community health services (Annex V) for each district showing expenditure both before and after charging out (Annex XII is a suggested format for this return);
 - iv. a specialty cost return for each district by the broad patient groups identified in paragraph 2.30d (Annex XIII is a suggested format for this return);
 - v. a programme cost return for each district, analysing expenditure by the 'types of programmes' defined in our Fifth Report on the community health services, together with the other services identified

in Annex VII (Annex XIV is a suggested format for this return). The analysis of expenditure to be included in this return should be reviewed once the nationally available activity data for these services has been agreed (Chapter 9 of our Fifth Report refers);

- vi. the other returns which comprise the present submission of annual accounts and cost returns. We have reviewed these, and our proposals are set out in Annex XV.

3.4 While this recommendation entails the submission of extra cost information by specialty, this is to some extent offset by not sub-dividing the departmental analysis by 'in patient/out patient', etc as at present, and by consolidating the submission.

3.5 During consultation on our Interim Report, there was strong support for this recommendation from many authorities, although others were concerned that such timescales could only be achieved once computer facilities and access to them improve, and by relaxation of some accounting procedures. We firmly believe that such improvements and changes should be made and, indeed, that they are essential if information for all management tiers is to be timely. Authorities should regard the regular and consistent provision of financial information to the operational level during the year as an essential part of good management. If properly carried out it will avoid the massive year-end effort which may clash with priority operational needs.

3.6 We see the above returns initially submitted in manual form as at present, but the long term aim is submission in a machine readable format, when it may be desirable to review the information provided.

Summary of recommendations

1. The Uniform Subjective Analysis of Expenditure should be the minimum data set for all authorities and the headings should be reviewed regularly to keep them up to date¹.
(paragraph 2.8)
2. A code of practice for budgetary purposes is 'commended'.
(paragraph 2.11)
3. Information should be available by individual sites and there should be a national coding structure¹.
(paragraph 2.12)
4. The departmental analysis of expenditure for hospital services should be as in Annex III.
(paragraph 2.15)
5. The items of expenditure included within each heading should be amended to provide a more accurate assessment of the cost of running each department¹.
(paragraph 2.16)
6. The departmental analysis for each hospital site should show expenditure both before and after 'charging out' to other services and sites.
(paragraph 2.17a)
7. Work-units associated with the output of each department should be developed¹.
(paragraph 2.17b)
8. The departmental analysis for community health services should be as in Annex V.
(paragraph 2.20)
9. Specialty costing should be introduced.
(paragraph 2.27)
10. Different costing systems should be examined, not only in terms of their design, but also to measure their usefulness to managers¹.
(paragraph 2.29)
11. Specialty costs should be produced according to certain criteria.
(paragraph 2.30)
12. Programme costs should be produced for services not included in specialty costs¹.
(paragraph 2.34)
13. For patient transport services:
 - a. the departmental analysis should be as in Annex VIII;
(paragraph 2.36)

¹These recommendations require further work.

- b. expenditure on general services should be available by individual ambulance stations; (paragraph 2.36)
 - c. expenditure on operational services should be split between emergency and non-emergency services¹. (paragraph 2.37)
14. For HQ Administration the analysis should be as in Annex IX. (paragraph 2.39)
15. For Blood Transfusion Services:
- a. production costs should be analysed as at present; (paragraph 2.42)
 - b. blood and blood product consumption should be a charge on districts and should be included in specialty costs. (paragraphs 2.40/2.43)
16. For Joint Finance a minimum data set for each project is proposed. (paragraph 2.44)
17. For community health councils an analysis of expenditure is proposed. (paragraph 2.45)
18. For other services expenditure and unit costs should be available. (paragraph 2.46)
19. The subjective analysis of Capital should be more in line with that for revenue. (paragraph 2.51)
20. The departmental analysis of Capital should be as at present but be reviewed once the AHST study is complete¹. (paragraph 2.51)
21. The submission of information to DHSS should be in one set of management accounts¹. (paragraph 3.3)

¹These recommendations require further work.

Summary of further work

1. The SUBJECTIVE Analysis to be kept under review.
(paragraph 2.8)
2. HOSPITAL SITES to be classified and a national coding structure produced.
(paragraph 2.12)
3. The 'MANUAL FOR ACCOUNTS' to be revised.
(paragraph 2.16)
4. WORK-UNITS to be developed associated with the output of each department.
(paragraph 2.17)
5. Continued examination of different COSTING SYSTEMS.
(paragraph 2.29)
6. The costing of COMMUNITY HEALTH CARE PROGRAMMES to be developed.
(paragraph 2.34)
7. Expenditure on PATIENT TRANSPORT SERVICES to be split between emergency and non-emergency services.
(paragraph 2.37)
8. The departmental analysis of CAPITAL to be reviewed once the work of the AHST group is complete.
(paragraph 2.51)
9. The analysis of expenditure in the PROGRAMME COST RETURN to be reviewed when the nationally available activity data for these services has been agreed.
(paragraph 3.3bv)

Composition of the Steering and Finance Working Groups

1 The Steering Group

The following are or have been members of the Steering Group: past members are indicated with an asterisk.

Mrs E Körner	Chairman
Mrs G T Banks	Under Secretary DHSS (from July 1982)
Dr H E A Carson	DMO, Richmond, Twickenham and Roehampton Health Authority (from July 1982)
*Mr D de Peyer	Under Secretary DHSS (to July 1982)
*Mr J Elkington	Consultant, Arrowe Park Hospital (to April 1983 for Joint Consultants Committee)
*Dr N J B Evans	Deputy Secretary DHSS (to November 1982)
Mr M Fairey	Regional Administrator, North East Thames RHA
Dr M Goldacre	Regional Specialist in Community Medicine Oxford RHA
Mr G Greenwood	District Treasurer, Wirral Health Authority (from May 1982)
*Dr G Guest	Regional Management Services Officer, Wessex RHA (to January 1984)
Mr K Heron	District Administrator, Huntingdon Health Authority (from January 1983)
Professor W Holland	Department of Community Medicine, St Thomas' Hospital, London
Dr A Jennings	Consultant, Northampton General Hospital (from July 1980 for Joint Consultants Committee)
Miss J I Jones	RNO, West Midlands RHA
*Mr R Jones	District Administrator, Frenchay Health Authority (to September 1982)
*Mr R Lawrence	Area Treasurer, Wirral Health Authority (to April 1982)
*Mr R Myall	Regional Treasurer, North West Thames RHA (to April 1982)
Mr D Pace	Regional Treasurer, South West Thames RHA (from May 1982)

*Mrs A Poole	Deputy Chief Nursing Officer DHSS (from September 1981 to December 1982)
*Dr R Rowe	Area Medical Office, Dorset Health Authority (to April 1982)
*Dr C F Scurr	Consultant, Westminster Hospital, London (to June 1980 for Joint Consultants Committee)
Mr A R Smith	Director of Statistics and Research DHSS
Dr E Shore	Deputy Chief Medical Officer DHSS (from January 1983)
Mr A R Thatcher	Registrar-General, OPCS
*Dr W Turner	Regional Medical Officer, Yorkshire RHA (to December 1983)
Dr D Wild	Regional Medical Officer, South West Thames RHA (from January 1984)
Miss P Wright-Warren	Deputy Chief Nursing Officer DHSS (to September 1981 and from January 1983)

The Secretariat has been provided by:

Mr P Davies	Principal DHSS (from February 1983)
*Mr J M Dunning	Principal DHSS (to August 1983)
Mrs M Fry	Principal DHSS (from August 1983)
*Mr C Hogan	Statistician DHSS (to January 1983)
Dr A Mason	Senior Medical Officer DHSS
Mr R Willmer	Statistician DHSS (from October 1982)

**2 Working Group F
(Financial Information)**

The following were members of the Finance Working Group; the job titles refer to the posts held when the work was in progress.

Mr V Alcock	Principal DHSS (to December 1981)
Mrs G T Banks	Under Secretary DHSS (from December 1981)
Mr R Cubitt	Assistant Secretary DHSS (from June 1981)
Mr T Fiander	Principal DHSS (from January 1982)
Mrs J Firth	Assistant Secretary DHSS (to November 1981)
Mr G Greenshields	Regional Treasurer, North Western RHA
Mr C Grimes	Treasurer, West Glamorgan Health Authority
Mr R Hawkins	District Treasurer, Basingstoke and North Hants Health Authority
Mr J Hurst	Senior Economic Adviser, DHSS
Mr D Joines	Regional Treasurer, North East Thames RHA (Chairman to March 1982)
Mrs E Körner	Steering Group Chairman
Mr D Moss	District Treasurer, East Dorset Health Authority
Mr D Pace	Regional Treasurer, South West Thames RHA (Chairman from April 1982)

Mr J Rushfirth	District Treasurer, Leeds Western Health Authority
Mr G Tallent	District Treasurer, Somerset Health Authority
Mr R Willmer	Steering Group Secretariat
Mr P Worsley	Principal Assistant Regional Treasurer, West Midlands RHA

All Services Authority Minimum Data Set—Subjective Analysis for Revenue Expenditure

A. SALARIES AND WAGES

1. MEDICAL

Consultants
SHMOs, Associate specialists
Senior registrars
Registrars
Senior house officers
House officers
Hospital practitioners
Clinical assistants (para 94, Note¹) and sessions in BTS
Staff fund payments (paras 88-93, Note¹)
Senior clinical medical officers,
 Clinical medical officers
Regional medical officers,
 District medical officers,
 Specialists in community medicine
Trainees in community medicine
Sessional CHS appointments
DMT representatives

2. DENTAL

Consultants
SHDOs, Associate specialists
Senior registrars
Registrars
Senior dental house officers
Dental house officers
Dental practitioners (para 107, Note¹)
District dental officers
Community health SDOs and DOs
Trainees in community dentistry

3. NURSES AND MIDWIVES²

Team nurses, Senior nurse managers
Other nursing officers not included above
Other trained staff
Nursing assistants and auxiliaries
Unregistered/unenrolled staff in training
Nursing cadets and pre-nursing students

¹Terms and conditions of service of hospital Medical and Dental Staff.

²Subject to review following the establishment of the new Pay Review Body for these staff.

4. PROFESSIONAL AND TECHNICAL—PTA²
Professions supplementary to medicine
Scientists
Chaplains
5. PROFESSIONAL AND TECHNICAL—PTB²
Medical laboratory scientific officers
Technicians:
Dental/maxillo facial technicians
Pharmacy technicians
Dental hygienists, Dental auxiliaries, Dental surgery assistants
All other technicians
Works Staff:
Regional
District/unit
6. OPTICIANS
7. PHARMACISTS
8. ADMINISTRATIVE AND CLERICAL²
Administrative and clerical
NHS staff on protected local authority salary scales
9. ANCILLARY STAFF²
Orthopaedic appliance fitters/makers
Upholsterers
All other ancillary staff negotiated by Whitley
All other ancillary staff not negotiated by Whitley
10. MAINTENANCE STAFF²
Building trade operatives
Common grading structure grades
Planner estimators
11. AMBULANCE STAFF
Officers and control assistants
Other grades
12. NON NHS STAFF (AGENCY ETC)
(By NHS Staff Classification)
Medical
Dental
Nurses and midwives
Professional and technical — PTA
Professional and technical — PTB
Opticians
Pharmacists
Administrative and clerical — typing and secretarial skills
Administrative and clerical — other
Ancillary
Maintenance
Ambulance staff
All other

¹Terms and conditions of service of hospital Medical and Dental Staff.

²Subject to review following the establishment of the new Pay Review Body for these staff.

13. CHAIRMAN'S REMUNERATION

B. NON-PAY EXPENDITURE

1. SUPPLIES & SERVICES — CLINICAL

Occupational and industrial therapy equipment and materials

Drugs

Medical gases

Dressings

Medical & surgical equipment

— purchases

— maintenance contracts

X-ray film

X-ray equipment and chemicals

X-ray equipment — maintenance contracts

Patients' appliances

Laboratory equipment

— instruments and materials

— maintenance contracts

2. SUPPLIES AND SERVICES — GENERAL

Provisions — purchases

— contract catering

Staff uniforms and clothing including contracts for making up, etc

Patients' clothing

Laundry — equipment and materials

— external contracts

Hardware and crockery

Bedding and linen

3. ESTABLISHMENT EXPENSES

Printing and stationery

Postage

Telephone — rental

— other, including calls

Advertising

Travelling and subsistence expenses

Removal expenses

4. TRANSPORT AND MOVABLE PLANT

Fuel and oil

Maintenance — equipment & materials

— external contracts

Hire of transport

Hospital car service

Miscellaneous transport expenses

5. PREMISES AND FIXED PLANT

Coal

Oil

Electricity

Gas

- Other fuel
- Water
- Cleaning — equipment and materials
 - external contracts
- Furniture, furnishings and fittings
- Office equipment
- Purchase of computer hardware and software (including rent and leasing)
- Maintenance of computer hardware and software, including licence fees
- External contracts for data processing services
- Rates
- Rents
- Engineering maintenance
 - equipment and materials
 - external contracts
- Building maintenance
 - equipment and materials
 - external contracts
- Gardening and farming
 - equipment and materials
 - external contracts
- 6. AGENCY SERVICES
 - Laboratory services by non-NHS bodies
 - Joint user agreements (Part III National Assistance Act 1948)
 - Contractual arrangements for patient care
 - Fluoridation payments to water authorities
- 7. MISCELLANEOUS EXPENDITURE
 - Students' bursaries
 - Patients' allowances
 - Youth Training Scheme — Payments to trainees
 - Gross redundancy payments
 - All other expenditure

C. DIRECT CREDITS

From staff for:

- Lodging charges
- Rents and rates
- Services including redecoration
- Staff and other meals

From Sales:

- Silver recovery
- Old X-ray films
- Occupational therapy
- Industrial therapy
- Farms, market gardens
- Shops and canteens

From category II fees

From students' fees

From practitioners for the use of health centre suites

From the sale of proprietary baby foods, etc

From non-NHS use of ambulance services

Other

Hospital Services District Minimum Data Set — Departmental Analysis for Each (Hospital) Site¹

A. PATIENT TREATMENT SERVICES

- a. Wards²
- b. Out-patient clinics
- c. Day care facilities
- d. Accident & emergency departments
- e. Radiotherapy departments
- f. Audiology
- g. Chiropody
- h. Dental surgery
- i. Dietetics
- j. Electrocardiography
- k. Electroencephalography
- l. Industrial therapy
- m. Medical illustration & photography
- n. Medical physics
- o. Nuclear medicine
- p. Occupational therapy
- q. Operating theatres
- r. Optical services
- s. Pathology:
 - i. Chemical pathology
 - ii. Haematology
 - iii. Histopathology
 - iv. Microbiology
 - v. Blood transfusion supplies
- t. Pharmacy
- u. Physiotherapy & remedial gymnastics
- v. Psychology
- w. Radiology
- x. Social work support (A&C staff supporting social workers)
- y. Speech therapy
- z. Miscellaneous patient treatment services

B. GENERAL SERVICES

- a. Catering
- b. Laundry
- c. Linen
- d. Administrative office
- e. Medical records
- f. Training & education
- g. Domestic/cleaning
- h. Portering
- i. Transport
- j. Estate management:
 - i. Engineering maintenance
 - ii. Building maintenance
 - iii. Energy
 - iv. Water and sewerage
 - v. Grounds and grounds
 - vi. General estate expenses
- k. Miscellaneous services and expenses
- l. General services direct credits

Notes

¹Items to be included within each heading will accord with the principles set out in Annex IV. This analysis should be available by both the site providing the service and the site/service/authority consuming the service.

²Districts may wish to show separately any special care units.

The Departmental Analysis of Revenue

1. General Principles

1.1 All expenditure and direct credits of health authorities will be included in expenditure statements covering:

- a. hospital services;
- b. community health services;
- c. patient transport services;
- d. headquarters administration;
- e. blood transfusion services;
- f. other services.

1.2 All health service income will be shown on the income statement.

1.3 A hospital services statement will be produced for each coded hospital site.

1.4 The aim of each statement will be to identify all expenditure initially incurred by each department. In respect of patient treatment services and general services which support the main patient areas (wards, out-patient clinics, day care facilities, A & E departments and radiotherapy in hospitals; medical, dental and nursing services in the community), this expenditure will be recharged to the statement which refers to the patient's location.

1.5 Within each statement, expenditure will be charged to the department in which it is committed. For example, ward clerks will be charged to 'wards', medical secretaries with the relevant medical staff, and drugs supplied to operating theatres will be charged to 'operating theatres'.

2. Preserving Consistency — General

2.1 To ensure consistency in applying the aforementioned principles, the following procedures will be followed in the preparation of all statements.

2.2 Expenditure and direct credits will be treated in accordance with revised uniform analyses, which will be included in the 'Manual for Accounts' (An example of the revised analyses is in the attached Appendix IV(1)).

2.3 Salaries and expenses of nurse managers and their secretarial support staff will be apportioned in relation to the staff groups managed.

2.4 Movable or consumable equipment which is located in patient treatment departments will be charged, together with its maintenance costs, to those departments. Similar procedures will be applied to movable and

consumable equipment in the general services departments. Equipment of an engineering nature which is fixed as part of the building fabric will be charged to 'engineering maintenance'. However, fixed plant specifically for the provision of catering, laundry and energy services will be charged to the relevant general services headings. Items such as greenhouses will be charged to 'grounds and gardens', otherwise all expenditure on maintenance of buildings will be charged to 'building maintenance'.

2.5 Repairs to, and maintenance of, equipment which was purchased through the capital account will be treated as in paragraph 2.4 above.

2.6 'Training and education' will include payroll costs of staff on formal training courses. The statement which will bear the expenditure incurred on training will be that to which the salary is normally charged. Training expenditure relating to nurse learners whilst not in health service patient treatment areas will be charged to 'training and education' in the service/site statement for the location of the school of nursing.

2.7 Direct staff and other costs of manufacturing units (eg CSSD, perfusion of fluids, etc) for products charged direct to patient care services when purchased externally should be recharged to the consuming departments. However, general services expenditure on these manufacturing units will remain in 'general services' on the statements where they are located.

2.8 Expenditure on the procurement of goods and services will be charged to 'supplies — procurement' in the HQ administration statement. However, expenditure on storage, control and distribution will be recharged as an on-cost to goods supplied to user departments (accounting arrangements should ensure the correct treatment of expenditure within the subjective analysis of expenditure). A memorandum account must be completed to support this recharge.

2.9 'Water and sewerage' will include all expenditure on water and sewage disposal with the exception of staff residences and water used in laundries and boiler plant.

3. Preserving Consistency Within Individual Statements

3.1 Consistency in applying the principles set out in Sections 1 and 2 above is imperative. In addition, the procedures described in Sections 4 to 8 below must also be followed.

4. Hospital Services (Annex III)

4.1 The hospital services statements will include expenditure on the hospital patient treatment areas (specified in paragraph 1.4 above) provided by health authorities on NHS managed premises which contain at least one bed routinely used by patients overnight, together with diagnostic, treatment and general services which support that patient treatment.

4.2 Where staff work on wards, out-patient clinics, day care facilities, A & E departments, radiotherapy and operating theatres, as well as in diagnostic and other treatment departments (eg radiology, physiotherapy and pharmacy), the full cost will be charged to the latter group of departments.

4.3 Expenditure incurred in diagnostic and treatment departments, such as pathology and physiotherapy, relating to investigation and treatment resulting from referrals by general practitioners under open access agreements, will be recharged to the community health services statement.

4.4 Expenditure on consultant domiciliary fees and expenses will be charged to the community health services statement.

4.5 Expenditure on home dialysis, including that provided in minimal care units, will be charged to the community health services statement of the authority managing the service.

4.6 'Dental surgery' will include all work carried out in dental surgery units, and the cost of staff based in such units — notwithstanding that their work may be carried out elsewhere (eg in wards, theatres or other departments). The costs of medical and dental staff (eg anaesthetists and orthodontists) will be charged to 'dental surgery' when working in a dental surgery unit.

4.7 'Medical records' is defined as "an appointment booking and record keeping system in relation to patients and patient activity at hospital or community health services level; exclusive of secretarial support for clinical medical staff and of other staff working solely for patient treatment services".

5. Community Health Services (Annex V)

5.1 The community health services statement will include expenditure on the community patient treatment areas (specified in paragraph 1.4 above) provided by health authorities, other than hospital services as defined in paragraph 4.1, together with diagnostic treatment and general services which support those patient treatment areas.

5.2 Expenditure incurred in diagnostic and treatment departments such as pathology and physiotherapy relating to investigation and treatment resulting from referrals by general practitioners under open access agreement will be charged to the community health services statement.

5.3 Expenditure on consultant domiciliary fees and expenses will be charged to the community health services statement.

5.4 Expenditure on home dialysis, including that provided in minimal care units, will be charged to the community health services statement of the authority managing the service.

5.5 'Medical services' will include all medical staff salaries, fees, staff expenses and supporting secretarial staff, together with all drugs/dressings prescribed, medical and surgical supplies including vaccines and family planning supplies.

5.6 'Dental services' will include salaries of medical anaesthetic staff, dentists, all technical dental support staff and secretarial support staff, together with staff expenses, drugs, dressings, medical and surgical supplies, medical gases, dental and all other departmental furniture and equipment.

5.7 'District nursing' will include salaries of district nurses and their

support staff working in the community, together with staff expenses, dressings, and medical and surgical supplies.

5.8 'Health visiting' will include health visitors' salaries, together with staff expenses, and medical and surgical supplies.

5.9 'Psychiatric nursing' will include salaries of nurses working with the mentally ill and with the elderly with psychiatric disorders, together with staff expenses, and medical and surgical supplies.

5.10 'Mental handicap nursing' will include salaries of nurses working with mentally handicapped patients, together with staff expenses, and medical and surgical supplies.

5.11 'Midwifery' will include salaries of midwives working in the community, together with staff expenses, drugs, dressings, medical gases, and medical and surgical supplies.

5.12 'Other nursing' will include salaries and staff expenses of nurses and their support staff not identified in paragraphs 5.7 — 5.11 above, together with drugs, dressings and medical and surgical supplies.

5.13 Expenditure on health education, family planning, immunisation, etc. will be included under 'health programme support' unless patient treatment is involved, in which case expenditure will be included in medical or nursing departments as appropriate. In particular, salaries and expenses of professional and technical, and administrative and clerical, staff working on these programmes will be included, together with all related departmental expenditure as defined in paragraphs 2.4 and 2.5 above.

5.14 Expenditure associated with the maintenance of patient treatment and 'health programme support' records will be included in the relevant patient treatment service. Expenditure on statistics and information of a management nature will be included in 'administrative office'.

6. Patient Transport Services (Annex VIII)

6.1 'Operational services' will include all expenditure on patient movement and on its control.

6.2 The 'general services' departments will subsume all other PTS expenditure except HQ administration. Thus, only transport expenditure not related to patient movement will be included in 'transport'. However, all linen and laundry expenditure will be included within 'general services'.

7. HQ Administration (Annex IX)

7.1 Managers, regardless of where they are based, who have managerial or advisory responsibilities at district or regional headquarters will be included in the HQ, Hospital, CHS, etc. statements in accordance with the proportion of cost relative to each role.

8. Blood Transfusion Services (paragraph 2.42)

8.1 'Blood collection' will include all expenditure related to the collection

of blood from the public, including the cost of transport of donor teams attending the venue, but excluding the hire of the venue, which will be charged to 'general estate expenses'. The donor organisation, including the cost of computer facilities, will be included in 'blood collection'. For accounting purposes, 'blood collection' will include all expenditure incurred until the blood arrives at the blood transfusion centre. 'Blood collection' will also include the cost of obtaining plasma direct from donors by plasmapheresis.

8.2 'Laboratory services' will include the cost of fractionating whole blood to extract various blood products, as well as expenditure on the usual laboratory expenses.

8.3 'Blood distribution' will include the costs of storing blood products before distribution, as well as transport costs, etc of delivery to the user sites.

8.4 The salaries of the BTS director and deputy will be charged to 'administrative office' except for that part of their time directly worked in collection, laboratory or distribution services.

ILLUSTRATIVE EXAMPLES OF REVISED UNIFORM ANALYSES

APPENDIX IV(1)

ITEM	HQ ADMINISTRATION AND OTHER SERVICES ACCOUNTS	MAIN- CODE	SUB- CODE	HOSPITAL SERVICES	SUB- CODE	COMMUNITY HEALTH SERVICES	SUB- CODE	SUBJECTIVE ANALYSIS	SUB- CODE
------	---	---------------	--------------	----------------------	--------------	---------------------------------	--------------	------------------------	--------------

UNIFORM ANALYSIS OF STAFF

Ward Clerk				Wards	101			Admin & Clerical	152
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UNIFORM ANALYSIS OF INCOME

Amalgam Sales				Dental Surgery	108	Dental Services	102	Silver recovery	312
---------------	--	--	--	----------------	-----	--------------------	-----	--------------------	-----

UNIFORM ANALYSIS OF OTHER EXPENDITURE

Deep-Fat Fryer; Purchase and Maintenance	Catering	15/16 21 22	151 422 308	Catering	151			Engineering Maintenance —Equipment & materials/ external contracts	238 239
--	----------	-------------------	-------------------	----------	-----	--	--	---	------------

Community Health Services District Minimum Data Set — Departmental Analysis

A. PATIENT TREATMENT SERVICES

- a. Medical services
- b. Dental services
- c. Nursing services
 - i. District nursing
 - ii. Health visiting
 - iii. Psychiatric nursing
 - iv. Mental handicap nursing
 - v. Midwifery
 - vi. Other nursing
- d. Audiology
- e. Chiropody
- f. Health programme support:
 - i. Health education
 - ii. Immunisation
 - iii. Family planning
 - iv. All other
- g. Occupational therapy
- h. Optical services
- i. Pathology
- j. Pharmacy
- k. Physiotherapy & remedial gymnastics
- l. Psychology
- m. Radiology
- n. Speech therapy
- o. Other patient treatment services

B. GENERAL SERVICES

- a. Catering
- b. Laundry
- c. Linen

- d. Administrative office
- e. Medical records
- f. Training and education
- g. Domestic/cleaning
- h. Porterage
- i. Transport
- j. Estate management:
 - i. Engineering maintenance
 - ii. Building maintenance
 - iii. Energy
 - iv. Water and sewerage
 - v. Grounds and gardens
 - vi. General estate expenses
- k. Miscellaneous services and expenses
- l. General services direct credits

Authority Minimum Data Set — Specialty Analysis

(Also indicating the relationship with specialties recognised by the Royal Colleges)

Recommended Specialty Groups Royal College Specialties

A. Medical Specialties	a. Paediatrics	Paediatrics, Paediatric neurology.
	b. Geriatrics	Geriatric medicine.
	c. Other medical	Audiological medicine, cardiology, clinical genetics, clinical neuro-physiology, clinical pharmacology, clinical physiology, dermatology, thoracic medicine, endocrinology, gastro-enterology, general medicine, genito-urinary medicine, haematology (clinical), infectious diseases, medical oncology, nephrology, neurology, nuclear medicine, rheumatology.
B. Surgical Specialties	a. General surgery and urology	General surgery, urology.
	b. Orthopaedics	Trauma and orthopaedics.
	c. ENT	ENT.
	d. Ophthalmology	Ophthalmology.
	e. Gynaecology	Obstetrics and gynaecology ¹ .
	f. Dental specialties	Oral surgery, orthodontics, restorative dentistry, paediatric dentistry.
	g. Neuro-surgery	Neuro-surgery.
	h. Plastic surgery	Plastic surgery.
	i. Other surgical	Cardiothoracic surgery, paediatric surgery.
C. Maternity Services	a. Maternity done by consultant obstetricians	Obstetrics and gynaecology ¹ .
	b. Maternity done by GPs	General Practice ¹ .
D. Psychiatric Specialties	a. Mental handicap	Mental handicap.
	b. Other psychiatric	Child and adolescent psychiatry, forensic psychiatry, mental illness, psychotherapy.
E. Other Specialties	a. General Practice (other than maternity)	General Practice ¹ .
	b. Radiotherapy	Radiotherapy.

- | | |
|--|--|
| c. Pathology specialties and radiology | All pathology specialties and radiology. |
| d. Anaesthetics | Anaesthetics. |
| e. A and E | Accident and Emergency ² . |

In addition, information on the following services, which may be sub-sets of one or more specialties, should be separately identified, with costs excluded from the corresponding specialties.

- | | |
|---|-----------------------------------|
| F. Supra-district services | a. Renal dialysis and transplant. |
| | b. Open heart surgery. |
| G. Supra-regional services ³ | a. Chorioncarcinoma services. |
| | b. Paediatric renal services. |
| | c. Spinal services. |
| | d. Infant cardiac surgery. |

¹ Sub-specialty analysis for maternity services.

² Patients using the 'Accident and Emergency' service are charged to the 'A and E' patient group regardless of the specialty of the consultant in charge of the department.

¹ Services presently identified by the 'Supra-Regional Services Advisory Group': this list may change from time to time.

Authority Minimum Data Set — Programme Analysis

This analysis is in three parts:

- a. Table I reproduces the structure of services to the community identified in Part I of our Fifth Report on the community health services. Authorities should analyse expenditure on these services at least to programme level. It should be noted that the programmes within each district will be determined in the light of local circumstances and priorities. For further details see Chapters 2–5 of our Fifth Report.
- b. Table II reproduces the structure of patient care programmes identified in Part II of our Fifth Report. Authorities should analyse expenditure at least to the four programmes listed. For further details see Chapter 6 of our Fifth Report.
- c. Table III covers the remaining services for which expenditure should be analysed in order that cost information is exhaustive.

Table I — Structure of Services to the Community¹

Categories of Programme	Types of Programme	Programmes (Examples only)
a. immunisation		i. measles ii. rubella
	{ i. surveillance, including health service activity relating to special education needs	i. anticipatory care for elderly ii. developmental assessment of pre-school children
b. health surveillance and early detection of disease	{ ii. screening for specific conditions	i. hypertension in adults ii. hearing impairment in school children
	{ iii. contact tracing	i. sexually transmitted diseases ii. tuberculosis
	{ i. health promotion and education	i. modifying smoking habits ii. improving dietary habits of elderly living alone
c. health promotion and education, and professional advice and support	{ ii. professional advice and support	i. post-natal care of mother ii. counselling of families of drug abusers or those associated with child abuse.

Table II — Structure of Patient Care Programmes

a. General	—	corresponding to services provided by district nurses
b. Mental illness	—	corresponding to services provided by community psychiatric nurses
c. Mental handicap	—	corresponding to services provided by community mental handicap nurses
d. Other	—	corresponding to services provided by other nurses working in the community (eg Marie-Curie nurses, Stomatherapists, Macmillan nurses).

Table III — Other services

- a. Community Dental Services
 - b. Home Dialysis
 - c. Maternity Services²
 - i. ante-natal care
 - ii. home confinement
 - iii. post-natal care
 - d. Family Planning Services
 - e. Domiciliary visits by consultants
 - f. Services to GPs under open access agreements
-

¹Information about school health services, which are essentially an administrative arrangement, will be collected under the various programmes to which they contribute.

²It is considered desirable to analyse expenditure on maternity services into the categories shown. The feasibility of such an analysis can be determined during the general development of costing the services identified in this Annex. The sections on ante-natal and post-natal care will include expenditure on all clinics held by consultants, midwives or GPs (when working for DHA) whether or not the clinics are held on hospital premises. Also to be included will be care provided by midwives and health professionals during domiciliary visits, but post-natal care falling within 'professional advice and support' (Table I — section c (ii)) will remain there, and should be identified as a separate programme. 'Home-confinement' will include expenditure on home delivery by a midwife or GP as well as the services of the 'flying squad' for obstetric emergencies. Only care in hospital for birth, together with other obstetric cases where patients 'use a hospital bed', will be included in the speciality analysis in Annex VI.

Patient Transport Services Minimum Data Set — Departmental Analysis

A. HEADQUARTERS ADMINISTRATION

B. OPERATIONAL SERVICES

1. Emergency¹
 - a. Control services
 - b. Ambulance stations
 - c. Other ambulance services
2. Non-Emergency¹
 - a. Control services
 - b. Ambulance stations
 - c. Other ambulance services

C. GENERAL SERVICES²

- a. Administrative office
- b. Training and education
- c. Catering
- d. Domestic/cleaning
- e. Portering
- f. Laundry
- g. Linen services
- h. Transport (other than in A or B above)
- i. Estate management:
 - i. Engineering maintenance
 - ii. Building maintenance
 - iii. Energy
 - iv. Water and sewerage
 - v. Grounds and gardens
 - vi. General estate expenses
- j. Miscellaneous services and expenses
- k. General services direct credits

¹The split between emergency and non-emergency services requires further work (see paragraph 2.37)

²To be available by individual ambulance stations

HQ Administration Authority Minimum Data Set

- A. General Administration:
 - a. Administrator's office
 - b. Personnel
 - c. Supplies — procurement
 - d. Legal
 - e. Public relations
 - (f. FPS administrator's office)
- B. Finance
- C. Medical administration
- D. Dental administration
- E. Patient transport services administration
- F. Scientific administration
- G. Pharmaceutical administration
- H. Nursing administration
- I. Works and maintenance administration (revenue only)
- J. Catering administration
- K. Domestic administration
- L. Other administrators
- M. Management services:
 - a. Work study and organisation and methods
 - b. Statistics
 - c. Operational research
 - d. Computer
 - e. Other
- N. Training and education
- O. Office services and expenses
- P. Accommodation, overheads and other expenses:
 - a. Catering
 - b. Domestic/cleaning
 - c. Portering
 - d. Transport
 - e. Estate management
 - f. Rent
 - g. Other
- Q. Members' expenses
- R. Contributions towards the cost of the Supply Council
- S. Other expenditure

District Minimum Data Set for Capital Expenditure — Subjective Analysis

A. SALARIES AND WAGES

1. PROFESSIONAL AND TECHNICAL — PTB¹

Works staff:

Regional
District/unit

2. ADMINISTRATIVE AND CLERICAL¹

Administrative and clerical
NHS Staff on protected local authority salary scales

3. MAINTENANCE STAFF¹

Building trade operatives
Common grading structure grades
Planner estimators

4. NON NHS STAFF (AGENCY, ETC)

Professional and technical — PTB
Administrative and clerical — typing and secretarial skills
Administrative and clerical — other

5. PROFESSIONAL DESIGN CONSULTANT FEES

Architects
Structural engineers
Quantity surveyors
Electrical engineers
Mechanical engineers
Estate agents and valuers fees

B. NON-PAY EXPENDITURE

1. SUPPLIES AND SERVICES — CLINICAL

Occupational and industrial therapy equipment
Medical and surgical equipment
X-ray equipment
Laboratory equipment

2. SUPPLIES AND SERVICES — GENERAL

Laundry equipment
Catering equipment
Hardware and crockery
Bedding and linen

¹Subject to review following the establishment of the new Pay Review Body for these staff.

3. ESTABLISHMENT EXPENSES

Advertising
Travelling and subsistence expenses

4. TRANSPORT AND MOVABLE PLANT

Purchase of vehicles
Hire of transport

5. PREMISES AND FIXED PLANT

Telephone installations
Cleaning equipment
Furniture, furnishings and fittings
Office equipment
Purchase of computer hardware and software (including rent and leasing)
Maintenance of computer hardware and software, including licence fees
External contracts for data processing services
Engineering services:

- equipment and materials
- external contracts

Building services:

- equipment and materials
- external contracts

Gardening and farming (including landscaping):

- equipment and materials
- external contracts

Purchase of land and buildings

6. Projects financed jointly with local authorities

7. All other expenditure.

District Minimum Data Set for Capital Expenditure — Departmental Analysis

A. HOSPITALS

1. New and replacement hospitals and existing hospitals undergoing virtual reconstruction:
 - a. Wards
 - b. Day care accommodation
 - c. Out-patient departments
 - d. Accident and emergency departments
 - e. Other departments and services:
 - i. Medical
 - ii. Non-medical
2. Other hospitals:
 - a. Wards
 - b. Day care accommodation
 - c. Out-patient departments
 - d. Accident and emergency departments
 - e. Other departments and services:
 - i. Medical
 - ii. Non-medical
3. Vehicles
4. Acquisition of land and buildings for:
 - a. New and replacement hospitals and existing hospitals undergoing virtual reconstruction.
 - b. Other hospitals.

B. COMMUNITY HEALTH SERVICES

1. Health Centres and Clinics:
 - a. Health centres
 - b. Clinics
2. Other schemes
3. Vehicles:
 - a. Health centres and clinics
 - b. Other
4. Acquisition of land and buildings:
 - a. Health centres and clinics
 - b. Other

C. PATIENT TRANSPORT SERVICES

1. Ambulance stations and control centres, etc
2. Vehicles:
 - a. Ambulances
 - b. Other
3. Acquisition of land and buildings

D. OTHER SERVICES

1. Administrative offices of health authorities
2. Other health authority schemes
3. Vehicles other than those included above
4. Acquisition of land and buildings for purposes other than hospital, community health and patient transport services
5. Projects financed jointly with local authorities

E. STAFF SERVICES

1. Salaries and wages, expenses, etc, of staff of professional and technical departments charged to the capital account.

Annex XI

Departmental analysis - hospital services expenditure

Site Name:

District:

RHA/SHA/BG:

Site

Classification:

Year ended 31 March 198

SINGLE SPECIALTY CODE

NUMBER OF BEDS

SITE IDENTIFICATION CODE					

EXPENDITURE ON THIS SITE						EXPENDITURE: TRANSFERS TO AND FROM OTHER SITES/SERVICES/ AUTHORITIES		NET EXPENDITURE THIS SITE
A. PATIENT TREATMENT SERVICES	Unit of work Measurement	Code	Number of Work Units	Unit Cost	Total Expenditure	TO	FROM	
			21	22	23	24	25	26
a. Wards		101						
b. Outpatient clinics		102						
c. Day care facilities		103						
d. A and E departments		104						
e. Radiotherapy departments		105						
f. Audiology		106						
g. Chiropody		107						
h. Dental surgery		108						
i. Dietetics		109						
j. Electrocardiography		110						
k. Electroencephalography		111						
l. Industrial therapy		112						
m. Medical illustration and photography		113						
n. Medical physics		114						
o. Nuclear medicine		115						
p. Occupational therapy		116						
q. Operating theatres		117						
r. Optical services		118						
s. Pathology:		-						
i. Chemical pathology		119						
ii. Haematology		120						
iii. Histopathology		121						
iv. Microbiology		122						
v. Blood transfusion supplies		123						
t. Pharmacy		124						
u. Physiotherapy and remedial gymnastics		125						
v. Psychology		126						
w. Radiology		127						
x. Social work support (A and C staff supporting social workers)		-						
y. Speech therapy		128						
z. Miscellaneous patient treatment services		129						
		130						
TOTAL A		140						
B. GENERAL SERVICES								
a. Catering		151						
b. Laundry		152						
c. Linen		153						
d. Administrative office		154						
e. Medical records		155						
f. Training and education		156						
g. Domestic/cleaning		157						
h. Porterage		158						
i. Transport		159						
j. Estate management:		-						
i. Engineering maintenance		160						
ii. Building maintenance		161						
iii. Energy		162						
iv. Water and sewerage		163						
v. Grounds and gardens		164						
vi. General estate expenses		165						
k. Miscellaneous services and expenses		166						
l. General services direct credits		167						
TOTAL B		200						
TOTAL A + B		300						

Annex XII

Departmental analysis - community health services expenditure

District:

RHA/SHA/BG:

Year ended 31 March 198

	CODE	TOTAL EXPENDITURE	EXPENDITURE TRANSFERS TO AND FROM OTHER SERVICES		NET EXPENDITURE
			TO	FROM	
A. PATIENT TREATMENT SERVICES		23	24	25	26
a. Medical services	101				
b. Dental services	102				
c. Nursing services	-				
i. District nursing	103				
ii. Health visiting	104				
iii. Psychiatric nursing	105				
iv. Mental handicap nursing	106				
v. Midwifery	107				
vi. Other nursing	108				
d. Audiology	109				
e. Chiropody	110				
f. Health programme support:	-				
i. Health education	111				
ii. Immunisation	112				
iii. Family planning	113				
iv. All other	114				
g. Occupational therapy	115				
h. Optical services	116				
i. Pathology	117				
j. Pharmacy	118				
k. Physiotherapy and remedial gymnastics	119				
l. Psychology	120				
m. Radiology	121				
n. Speech therapy	122				
o. Other patient treatment services	123				
TOTAL A	140				
B. GENERAL SERVICES					
a. Catering	151				
b. Laundry	152				
c. Linen	153				
d. Administrative office	154				
e. Medical records	155				
f. Training and education	156				
g. Domestic/cleaning	157				
h. Portering	158				
i. Transport	159				
j. Estate management:	-				
i. Engineering maintenance	160				
ii. Building maintenance	161				
iii. Energy	162				
iv. Water and sewerage	163				
v. Grounds and gardens	164				
vi. General estate expenses	165				
k. Miscellaneous services and expenses	166				
l. General services direct credits	167				
TOTAL B	200				
GRAND TOTAL A + B	300				

Annex XIII

Specialty cost return

AUTHORITY CODE

--	--	--

District:

RHA/SHA/BG:

Year ended 31 March 198

PATIENT GROUPS SPECIALTIES	CODE	PATIENTS USING A BED (INC DAY CASES)			OUT PATIENTS			DAY CARE PATIENTS		
		MAIN CODE 01	02	03	MAIN CODE 04	05	06	MAIN CODE 07	08	09
		EXPEND- ITURE	PATIENT DAYS	CONSULT- ANT EPISODES	EXPEND- ITURE	ATTEND- ANCES	REFER- RALS (1)	EXPEND- ITURE	ATTEND- ANCES	NEW CASES
A. MEDICAL SPECIALTIES										
a. Paediatrics	101									
b. Geriatrics	102									
c. Other medical	125									
SUB TOTAL A	199									
B. SURGICAL SPECIALTIES										
a. General surgery and urology	201									
b. Orthopaedics	202									
c. E.N.T.	203									
d. Ophthalmology	204									
e. Gynaecology	205									
f. Dental specialties	206									
g. Neuro-surgery	207									
h. Plastic surgery	208									
i. Other surgical	225									
SUB TOTAL B	299									
C. MATERNITY SERVICES										
a. Maternity done by consultant obstetricians	301									
b. Maternity done by GPs	302									
SUB TOTAL C	399									
D. PSYCHIATRIC SPECIALTIES										
a. Mental handicap	401									
b. Other psychiatric	405									
SUB TOTAL D	499									
E. OTHER SPECIALTIES										
a. General practice (other than maternity)	501									
b. Radiotherapy	502									
c. Pathology specialties and radiology	503									
d. Anaesthetics	504									
c. A and E	505									
SUB TOTALE	599									
F. SUPRA DISTRICT SERVICES										
a. Renal dialysis and transplant	601									
b. Open heart surgery	602									
SUB TOTAL F	699									
G. SUPRA REGIONAL SERVICES										
a. Chorioncarcinoma services	701									
b. Paediatric renal services	702									
c. Spinal services	703									
d. Infant cardiac surgery	704									
SUB TOTAL G	799									
TOTAL A-G	800									

OTHER PATIENT GROUPS	SUB CODE	MAIN CODE		
		10	11	12
EXPEND-ITURE		ATTEND-ANCES		NEW CASES
Patients using accident and emergency services	801			

SUMMARY OF EXPENDITURE FOR ALL PATIENT GROUPS		
PATIENT GROUPS:	SUB CODE	MAIN CODE 13
PATIENTS USING A BED	900	
OUT PATIENTS	901	
DAY CARE PATIENTS	902	
PATIENTS USING A and E SERVICES (SC801)	903	
TOTAL	999	

Note (1) this heading is dependent on further work being undertaken to analyse out-patient attenders - see paragraph 10.12-10.14 of our First Report.

Annex XIV

Programme Cost Return

AUTHORITY CODE

DISTRICT:

RHA/SHA/BG:

Year ended 31 March 198

TYPES OF PROGRAMME	WORK UNIT	Code	Number of Units	Total Expenditure	Unit Cost
			41	42	43
A. Services to the Community: a. Immunisation b. Surveillance, including health service activity relating to special educational needs c. Screening for specific conditions d. Contact tracing e. Health promotion and education f. Professional advice and support B. Patient Care programmes: a. General b. Mental illness c. Mental handicap d. Other C. Other Services: a. Community dental services b. Home dialysis c. Maternity services: i. ante-natal care ii. home confinement iii. post-natal care d. Family planning services e. Domiciliary visits by consultants f. Services to GPs under open access agreements					
TOTAL	—		—		—

For details about the headings in this analysis see Annex VII.

Annex XV

List of Present Returns in the Annual Accounts and Cost Returns

Annual Accounts: Statement no.	Brief Description	Proposal ¹
01	Appropriation Account chargings	} Approved as at present
02	Income Receipts	
03	Agency Payments and Receipts	
04	Superannuation, tax and NI	
05	Statement of balances/movement in balances	
06	Source and application of funds	} As at present (see Annex IX)
07	Income Account	
08/09	Administration Account	
10	Hospital Services Account	
11	Community Health Services	
12	Other Services	} Incorporate in cost returns below
13	Community Health Councils	
14	Ambulance Services	
15	Blood Transfusion Service	
16	Mass Radiography	
17-20	Family Practitioner Services	} As at present but to include mass radiography and staff residences
21	Capital Expenditure Account	
22	Loss and Compensation Statement	
23-26	Trust Funds	
27	Statement of balances	
28	Subjective Analysis	} As at present (see para 2.45) Amend to Annex VIII and incorporate in cost returns
		} As at present but incorporate in cost returns
		} No longer required — include total expenditure in 12
		} Not covered by Working Group
		} As at present (Annex X)
		} As at present. See note ² below
		} Not covered by Working Group
		} As at present
		} As at present for revenue, revised analysis for capital (Annex X)
Cost Returns		
100	Reconciliation between cost and annual accounts	} No longer required
010	Hospital Services ³	
020	Catering	} Amend to Annex XI and amalgamate with statement 10
021	Laundry	
028-032	Estate Management	
040/41	Community Health Services ³	
050	Ambulance Service	
060-064	Blood Transfusion Service	} As at present
		} Amend to Annex XII and amalgamate with statement 11
		} Amalgamate with statement 14
		} Amalgamate with statement 15

¹ Statement 05 onwards and cost returns to be amalgamated into one set of "management accounts": see paragraph 3.3.

² The scope of this statement is expected to be expanded to show discrepancies and unexplained issues as losses and to give prominence to linen losses.

³ Additional cost returns are proposed in Annexes XIII and XIV. The scope of these annexes will accord closely, but not precisely, with the respective definitions of hospital and community health services in paragraph 2.5 of this Report.